SELF-DIAGNOSTIC FUNCTION

SERVICE MANUAL

FE-1 CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.
KV-25R2A	RM-883	Italian	SCC-Q06J-A
KV-25R2D	RM-883	AEP	SCC-Q04J-A
KV-25R2E	RM-883	Spanish	SCC-Q05J-A
KV-25R2K	RM-883	OIRT	SCC-Q03Q-A
KV-25R2R	RM-883	OIRT	SCC-Q03P-A

MICROFILM

TRINITRON® COLOR TV

SONY®

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
Italian	B/G/H	GERMAN Stereo	VHF : E02-E12, A-H2 UHF : E21-E69 CABLE TV : S01-S05, S1-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
AEP	B/G/H	GERMAN Stereo	VHF : E02-E12, A-H2, R01-R12 UHF : E21-E69, B21-B69, R21-R69, F21-F69 CABLE TV : S01-S05, S1-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, DK	GERMAN/NICAM Stereo	VHF : E02-E12, A-H2, R01-R12 UHF : E21-E69, R21-R69 CABLE TV : S01-S05, S1-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, D/K	KV-25R2K GERMAN/NICAM Stereo KV-25R2R GERMAN Stereo	VHF : E2-E12, R01-R12, A-H2 UHF : E21-E69, R21-R69 CABLE TV : S01-S05, S1-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	25R2A	25R2D	25R2E	25R2K	25R2R
Power Consumption	95W	95W	95W	95W	95W

[PICTURE TUBE] Super Trinitron
Approx. 63 cm (25 inches)
(Approx. 59 cm picture measured diagonally)
110 degree deflection

Input/Output Terminals

[REAR]

1/ 21-pin Euro connector (CENELEC standard).

- Inputs for Audio and Video signals.
- Inputs for RGB.
- Outputs of TV Video and Audio signals.

[FRONT]

2 Video input - phono jack

Audio inputs - phono jacks

Headphone jack : stereo minijack

Sound output	2x14W (Music Power)
Power requirements	220 - 240V
Dimensions	Approx 604x549x508mm
Weight	Approx 31kg
Supplied accessories	RM-883 Remote Commander (1) IEC designated R6 battery (2)
Other features	NICAM*, FASTEXT, TOPTEXT * (KV-25R2E/25R2K only)

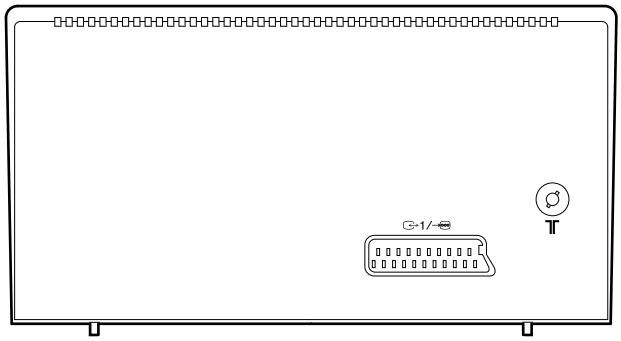
[RM-883]

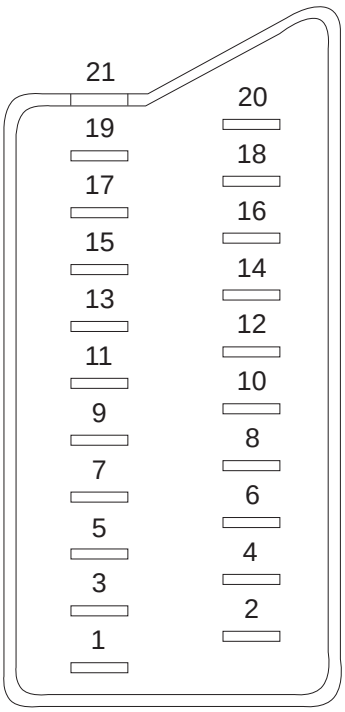
Remote control system	Infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimensions	Approx 65x225x21mm (w/h/d)
Weight	Approx 157g (Not including battery)

Design and specifications are subject to change without notice.

Model Name / Item	KV-25R2A	KV-25R2D	KV-25R2E	KV-25R2K	KV-25R2R
Pal Comb	OFF	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON
Scart 2	OFF	OFF	OFF	OFF	OFF
Front in (3)	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	ON
Norm I	OFF	OFF	OFF	OFF	OFF
Norm D/K	OFF	OFF	ON	ON	ON
Norm AUS	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF
Teletext	ON	ON	ON	ON	ON
Nicam Stereo	OFF	OFF	ON	ON	OFF
Language Preset	Italian	German	Spanish	OIRT	OIRT

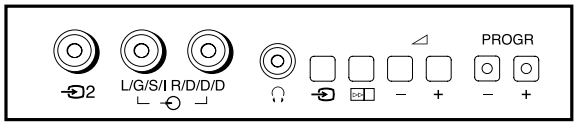
21 pin connector (1/)





Pin No	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
2	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedence : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedence : More than 10kohm*
7	○	●	●	Blue input	0.7 +/- 3dB, 75 ohms positive
8	○	○	○	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedence : More than 10K ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	–	–	Red input	0.7 +/- 3dB, 75 ohms, positive
	–	○	○	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedence : 75 ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
20	○	–	–	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
	–	○	○	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz



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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP

WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE'LANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÈ LORS DE TOUT DÈPANNAGE. LE CHÁSSIS DE CE RÈCEPTEUR EST DIRECTMENT RACCORDÈ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS Á LA SÈCURITÈ !!

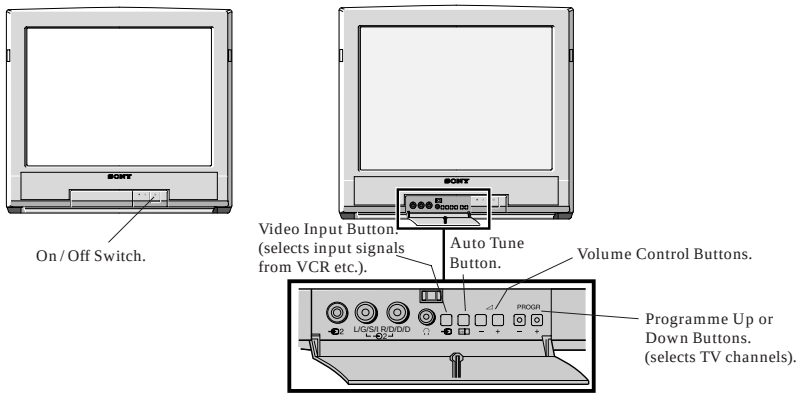
LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÈMAS DE PRINCIPE, LES VUES EXPLOSÈES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÈCURITÈ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPSANTS SONY DONT LE NUMÈRO DE PIÈCE EST INDIQUÈ DANS LE PRÈSENT MANUEL OU DANS DES SUPPLÈMENTS PUBLIÈS PAR SONY.

SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Basic TV Features

Overview of TV Buttons


On / Off Switch.
Video Input Button. (selects input signals from VCR etc.).
Auto Tune Button.
Volume Control Buttons.
Programme Up or Down Buttons. (selects TV channels).

Overview of Remote Control Buttons

To Mute Sound

Press to mute TV sound. Press again to restore the sound.

To Select Channels

Press to select channels.

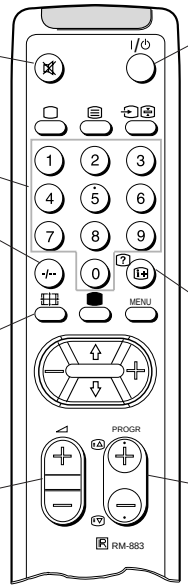
For double-digit programme numbers, e.g. 23, press -/-- first, then the buttons 2 and 3.
If you enter an incorrect first digit, this should be corrected by entering another digit (0 - 9) and then selecting -/-- button again to enter the programme number of your choice

To Change Screen Format

Press to view programmes in 16:9 mode.
Press again to return to 4:3 mode.

To Adjust TV Volume

Press to adjust the volume of the TV.



To Temporarily Switch Off TV

Press to temporarily switch off TV. Press again to switch on TV from standby mode.
To save energy we recommend switching off completely when TV is not in use.
NOTE: After 15 - 30 minutes without a TV signal and without any button being pressed, the TV switches automatically into standby mode.

To Reveal On Screen Information

Press to reveal all on-screen indications. Press again to cancel.

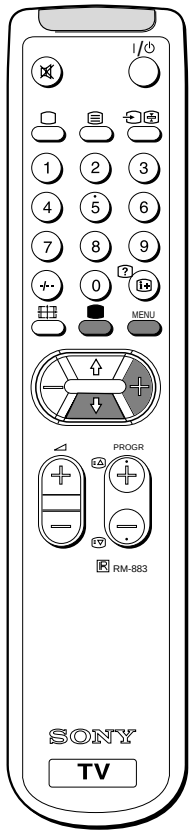
To Select Channels

Press to select channels.

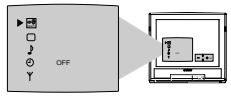
Additional TV Features

Using Select Mode

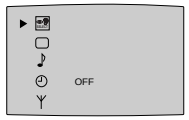
You can select different preset picture and sound modes.



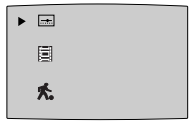
1 Press the MENU button on the remote control to display the menu on the TV screen.



2 With the cursor pointing at the symbol on the TV screen as shown, press the yellow button.



3 Press the blue button to select the desired mode:



- Personal Mode - reverts to settings made in "Adjusting the Picture and Sound" sections of the manual
- Movie Mode - for films
- Live Mode -for live broadcast programmes

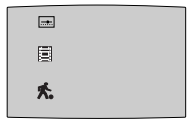
4 Press the MENU button to remove the menu display from the TV screen.

Note: The mode selected in step 3 is now stored.

Changing Modes Quickly

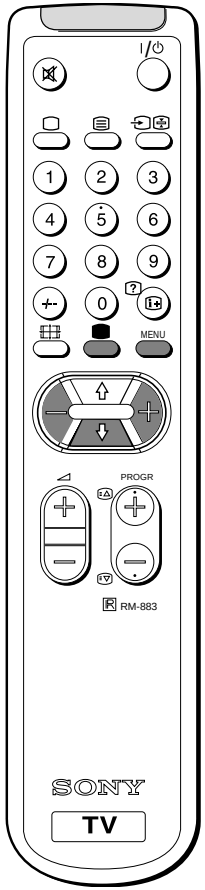
1 Press the ■ button on the remote control to display the three different modes.

2 Press the ■ button again to select your desired mode.

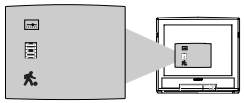


Adjusting the Picture

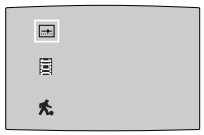
Although the picture is adjusted at the factory, you can modify it to suit your own requirement.



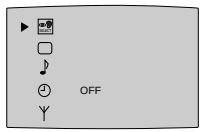
1 Press the ● button on the remote control to display the three different modes on the TV screen.



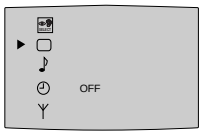
2 Press the ● button to highlight the personal mode symbol as shown.



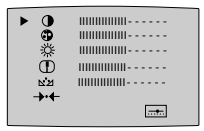
3 Press the MENU button to display the menu on the TV screen.



4 Press the blue button on the control to select the ▢ symbol on the TV screen then press the yellow button.



5 Press the blue button to select the item you wish to change (see below).



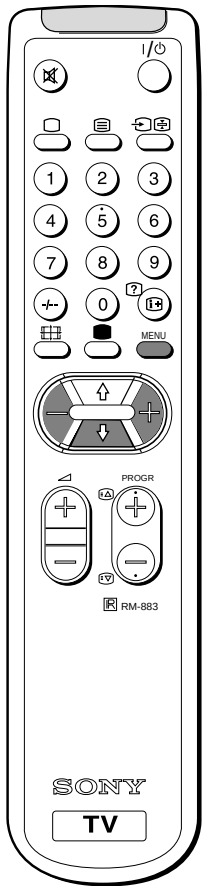
6 Press the red or yellow button to alter the selected item.

7 Press the MENU button to remove the menu display from the TV screen.

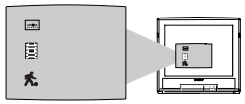
Symbol	Item
◑	• Contrast
	• Colour
☼	• Brightness
◐	• Sharpness
	• Hue control (only for NTSC video signals)
	• Reset - resets to factory preset picture level
	• Represents the mode selected in the “Using Select Mode” section.

Adjusting the Sound

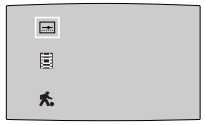
Although the sound is adjusted at the factory, you can modify it to suit your own requirement.



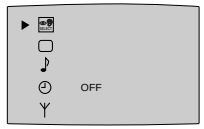
1 Press the ● button on the remote control to display the three different modes on the TV screen.



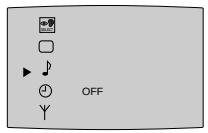
2 Press the ● button to highlight the personal mode symbol as shown.



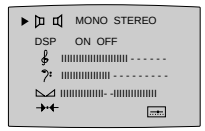
3 Press the MENU button to display the menu on the TV screen.



4 Press the blue button to select the ♪ symbol on the TV screen then press the yellow button.



5 Press the blue button to select the item you wish to change (see below).



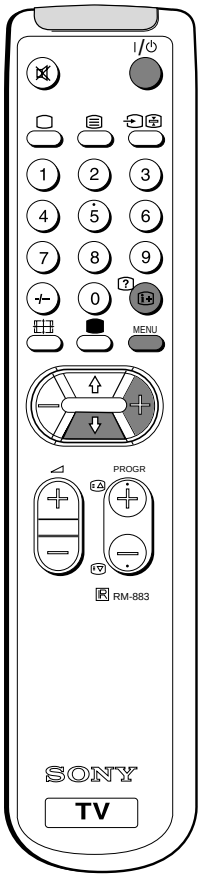
6 Press the red or yellow button to alter the selected item.

7 Press the MENU button to remove the menu display from the TV screen.

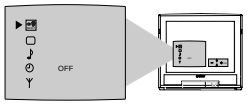
Symbol	Item
	• Mono / Stereo A:Channel 1 sound or Mono sound / B:Channel 2 sound (to select your desired language from a dual sound broadcast)
DSP	• On / Off (digital sound processor)
	• Treble
	• Bass
	• Balance
	• Reset (resets to factory preset sound level)
	• Represents the mode selected in the “Using Select Mode” section of the manual.

Using the Sleep Timer

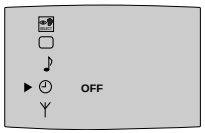
The TV may be set to switch automatically to the standby mode after a length of time chosen by you. You may set the time in 15 minute steps up to 4 hours.



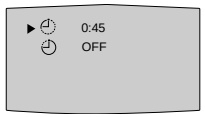
1 Press the MENU button on the remote control to display the menu on the TV screen.



2 Press the blue button on the control to select the ◴ symbol on the TV screen, then press the yellow button.

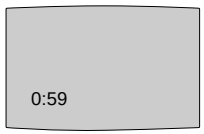


3 Press the yellow button repeatedly until the required amount of time delay appears on the screen.



4 Once the time delay has been selected, press the MENU button to remove the on-screen display.

One minute before standby, the display shown appears on the screen.

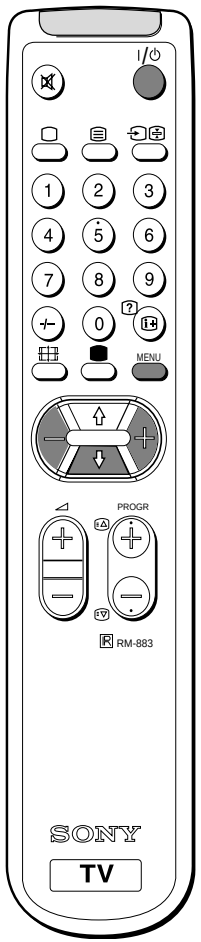


Notes:

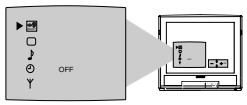
- When watching TV, press the ⓘ button to display time remaining.
- To return to normal operation from standby mode, press the I/⏻ button.

Using the Wake Up Timer

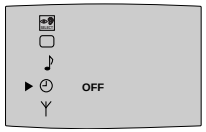
The TV may be set to switch on automatically after a length of time chosen by you. You may set the time in 15 minute steps up to 12 hours.



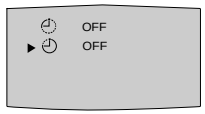
1 Press the MENU button on the remote control to display the menu on the TV screen.



2 Press the blue button on the control to select the ◴ symbol on the TV screen, then press the yellow button.



3 Press the blue button on the control to select the ◴ symbol on the TV screen, then press the yellow button.



4 Press the red or yellow button to set the time.

0:00 (OFF) 0:15 0:30 0:45 -----12:00

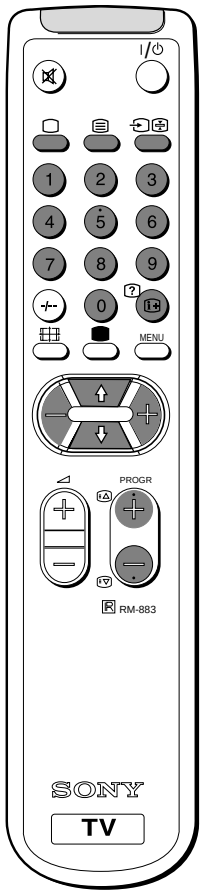
5 Press the standby button I/⏻.
The standby indicator on the TV flashes regularly to indicate that the Wake Up Timer is active.
After the selected length of time, the TV switches on automatically.

Notes:

- If you use the “Wake Up Timer” to switch the TV on and for one hour after switching on, no TV or Remote Control button is pressed, the TV switches itself back into Standby mode and the indicator ⏻ on the TV lights.
- Any temporary power failure will cause a misfunction in the “Wake Up Timer” and you will have to reset the “Wake Up Timer”.

Viewing Teletext

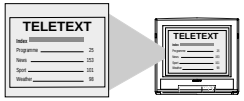
Teletext is an information service transmitted by most TV stations.



Selecting Teletext

1 Press a number button on the remote control to select the channel which carries the teletext service you wish to receive.

2 Press the ▤ button on the remote control to switch on teletext.



3 Input three digits for the page number using the numbered buttons on the control.

4 Press the ▢ button to switch off teletext.

Note: Teletext errors may occur if the broadcasting signals are weak.

Using Other Teletext Functions

To Superimpose Teletext on to the TV

Press ▤ once in teletext mode or twice in TV mode to superimpose teletext on to the TV screen.

Press ▤ again to cancel teletext mode.

To Move to Next or Preceding Page

Press PROGR + / - on the remote control to select the previous or next page.

To Freeze a Teletext Page

Press ⊞ on the control to freeze the page.
Press ⊞ again to cancel the freeze.

Revealing concealed information (eg: answers to a quiz).

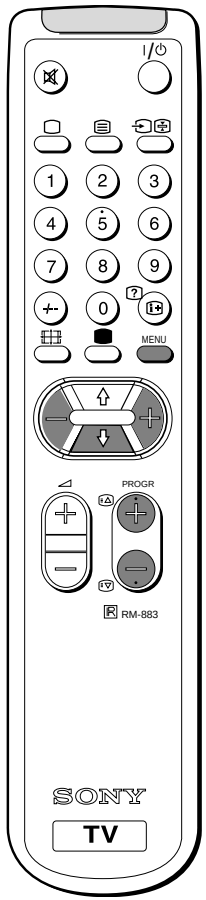
Press ? to reveal information.
Press again to conceal the information.

Using colour buttons to access pages (Fastext/TOPtext)

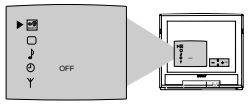
When the colour coded menu appears at the bottom of a page, press the colour button (green, red, yellow or blue) to access the corresponding page.

Exchanging Programme Positions

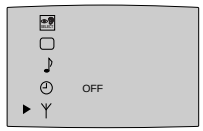
After tuning you may wish to change the order in which the channels appear on the TV. You may wish for example to exchange the channel on programme number 8 with the channel on programme number 4.



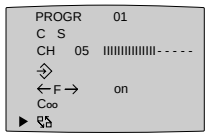
1 Press the MENU button on the remote control.



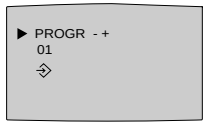
2 Press the blue button on the control to select ᛉ on the TV screen, then press the yellow button.



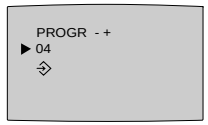
3 Press the blue button to select ⇆ then press the yellow button.



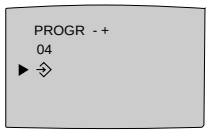
4 With the cursor pointing at PROGR on the TV screen as shown, press PROGR + or - button until the channel you wish to rearrange appears on screen, then press the blue button once.



5 Press the red or yellow button to select the new programme number (e.g. PROGR 04) for your selected channel.



6 Press the blue button to select ⇆ then press the yellow button to exchange the channels.

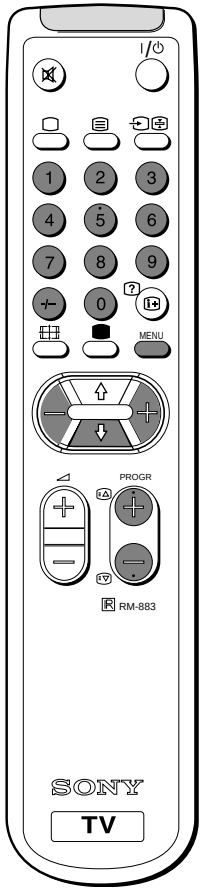


7 Repeat steps 4 to 6 if you wish to change the order of the other channels on your TV, then press MENU to return to normal TV screen.

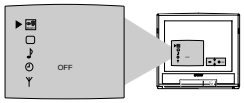
8 Press the PROGR+ / - button to view your selected channels on their new programme numbers.

Manually Tuning the TV

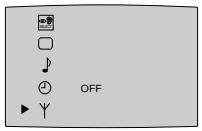
You have already tuned the TV to receive all available channels using the `Automatically Tuning the TV' procedure at the start of this manual. You can however carry out this operation manually using the following instructions.



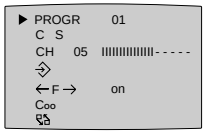
1 Press the MENU button on the remote control to display the menu on the TV screen.



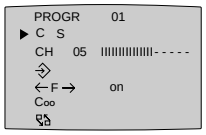
2 Press the blue button to select the ᛉ symbol on the TV screen then press the yellow button.



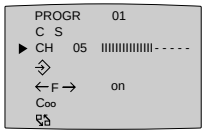
3 With the cursor pointing at PROGR on the TV screen as shown, press PROGR + or - button on the remote control to allocate a programme number to the channel (eg PROGR 01). For double digit numbers e.g. 55, press the -/-- button on the remote control then the corresponding numbered buttons.



4 Press the blue button to select the channel type (C to preset a regular channel or S to preset a cable channel) then press the yellow button to highlight the desired channel type.

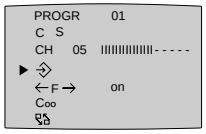


5 Press the blue button to select the tuning bar scale then press the yellow or red button once to start the channel search. (Yellow to search up the scale or red to search down). When a channel is found it appears on the TV screen.



6 If you do not wish to store this channel on the programme number you selected, press the yellow or red button to continue searching for the desired channel.

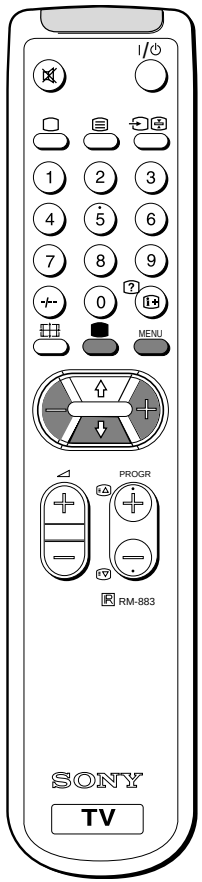
7 If this is the channel you wish to store, press the blue button to select the ⇩ symbol on the screen then press the yellow button to store.



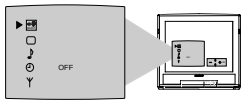
8 Repeat steps 3 to 7 if you wish to store more channels then press the MENU button to remove the menu from the TV screen.

Fine-Tuning Channels

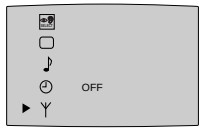
If a channel is slightly off tune, you can use this fine tune procedure to obtain a better picture reception.



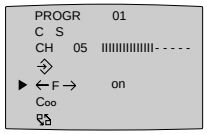
1 With the channel you wish to fine-tune on the screen, press the MENU button on the remote control. The menu display appears on the TV screen.



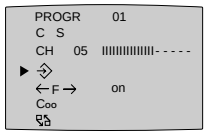
2 Press the blue button on the remote control to select the ᛉ symbol on the TV screen then press the yellow button.



3 Press the blue button to select the ←F→ symbol on the TV screen then press the red or yellow button to adjust the tuning.



4 Press the blue button to select the ⇩ symbol on the TV screen then press the yellow button to store.



5 Press the MENU button to remove the menu from the TV screen.

Using Optional Equipment

You can connect optional audio or video equipment to your TV, such as a VCR, a camcorder or video games as shown.

Select and View the Input Signal

1 Connect your equipment to the designated TV socket.

2 Press the ⊖ button repeatedly on your remote control until the correct input symbol appears on the TV screen.

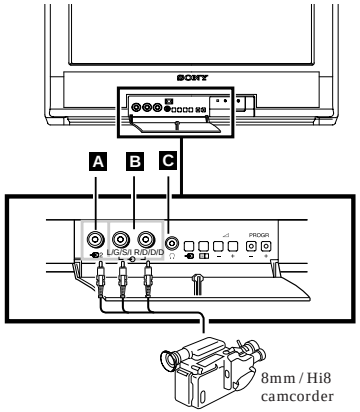
Symbol	Input signals
⊖1	• Audio / video input signal through the Euro AV connector **D**
⊸	• RGB input signal through the Euro AV connector **D**
⊖2	• Audio / video input signal through the phono sockets **A** and **B**

3 Switch on the connected equipment.

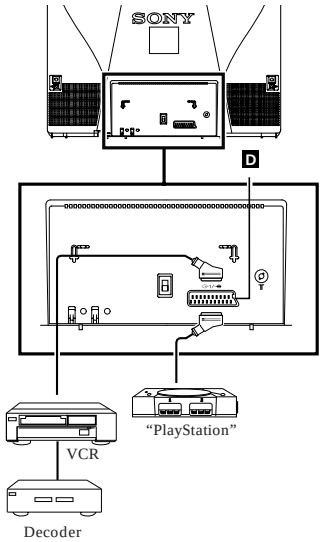
4 To return to normal TV picture, press the ▢ button on the remote control.

Note: To avoid picture distortion, do not connect equipment to the **A** and **D** connectors at the same time.

Front of TV



Rear of TV



Additional Information

Connecting a VCR

We recommend you tune in the VCR signal to TV programme number `0' using the `Manually Tuning in the TV' section of this instruction manual.

Connecting Headphones

Plug in your headphones to the socket **C** on the front of the TV set.

For Mono Equipment

Connect the phono plug to the L / G / S / I socket on the front of the TV and select ⊖2 input signal using the instructions above. Finally, refer to the `Adjusting the Sound' section of this manual and select `A' on the sound menu screen.

Troubleshooting

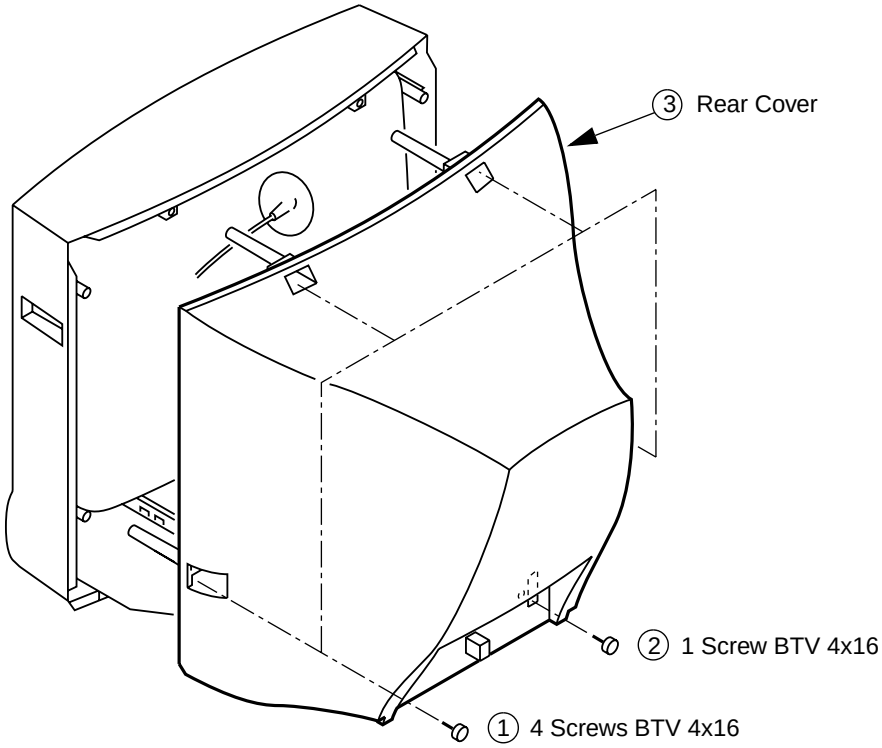
Here are some simple solutions to problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	• Plug the TV in. • Press the ⏻ button on the front of TV. • If the ⏻ indicator is on press I/⏻ button or a programme number button on the remote control. • Check the aerial connection. • Check that the selected video source is on. • Turn the TV off for 3 or 4 seconds and then turn it on again using the ⏻ button on the front of the TV.
Poor or no picture (screen is dark), but good sound	• Using the MENU system, select the Picture Adjustment display. Adjust the brightness, picture and colour balance levels. • From the Picture Adjustment display select →•← to return to the factory settings.
Poor picture quality when watching a RGB video source.	• Press the ⊖ button repeatedly on the remote control until the RGB symbol ⊸ is displayed on the screen.
Good picture, no sound	• Press the ◿ +/– button on the remote control. • If 🔇 is displayed on the screen, press the 🔇 button on the remote control.
No colour on colour programmes	• Using the MENU system, select the Picture Adjustment display. Adjust the colour balance. • From the Picture Adjustment display select →•← to return to the factory settings.
Distorted picture when changing programmes or selecting teletext	• Turn off any equipment connected to the 21 pin Euro connector on the rear of the TV.
Remote control does not function	• Replace the batteries.
Noisy picture when viewing TV channel	• Adjust fine tuning to obtain better picture reception.
The standby indicator ⏻ on the TV flashes even though the "Wake Up Timer"is not in use.	• Contact your nearest Sony service centre.

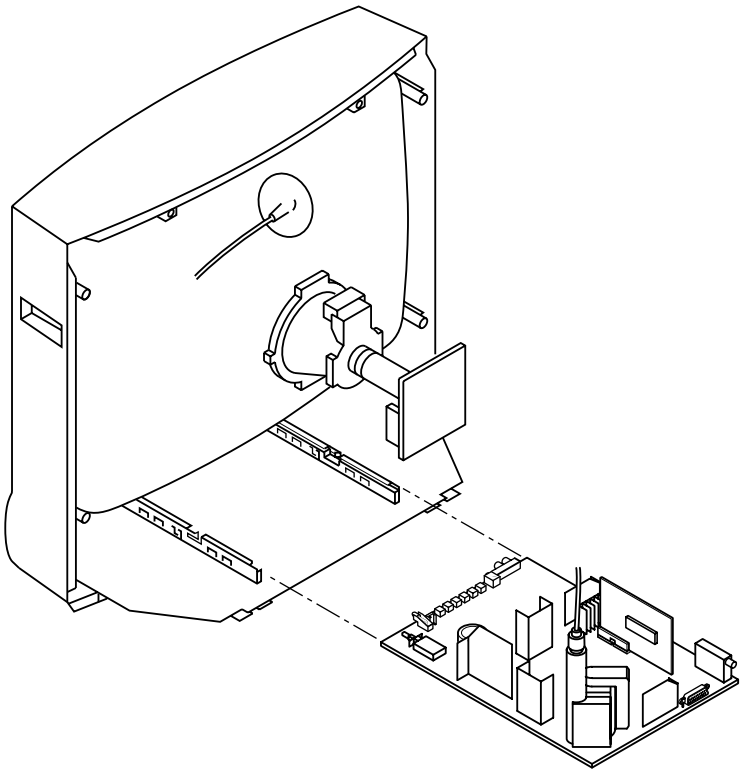
- **If you continue to have these problems, have your TV serviced by qualified personnel.**
- **NEVER open the casing yourself.**

SECTION 2
DISASSEMBLY

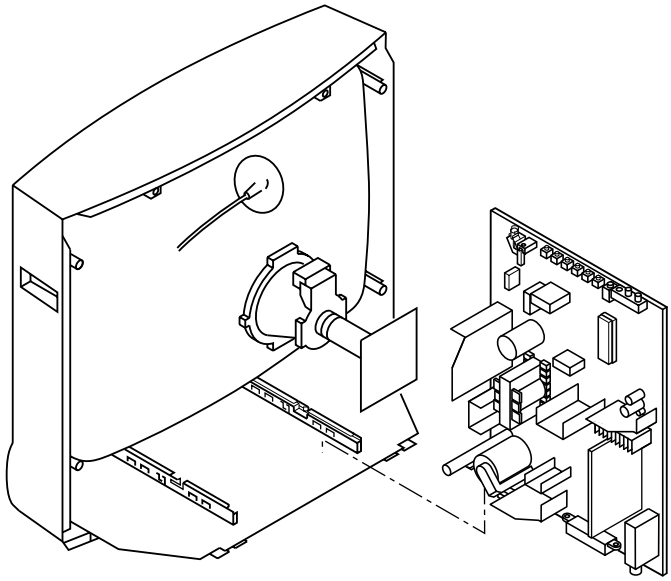
2-1. REAR COVER REMOVAL



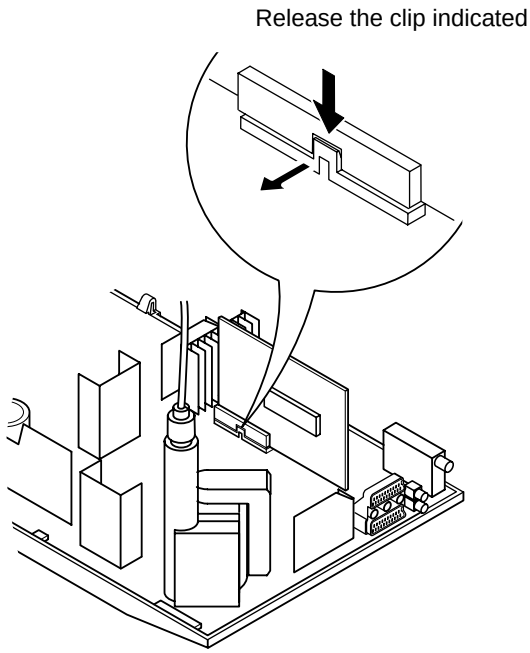
2-2. CHASSIS ASSY REMOVAL



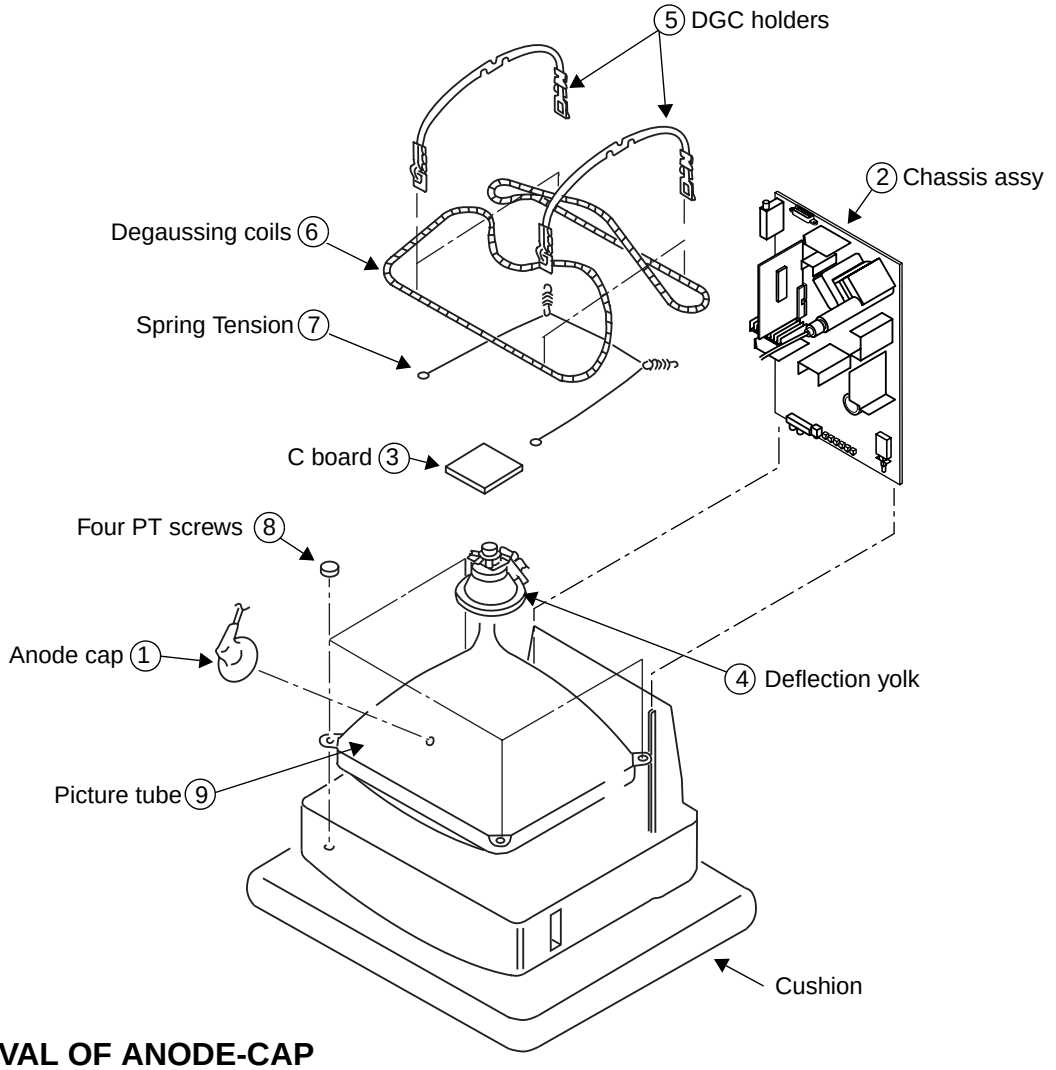
2-3. SERVICE POSITION



2-4. S1 BOARD REMOVAL



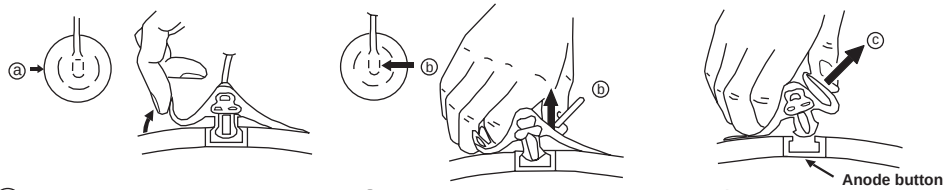
2-5. PICTURE TUBE REMOVAL



- **REMOVAL OF ANODE-CAP**

Note : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

*** REMOVING PROCEDURES.**



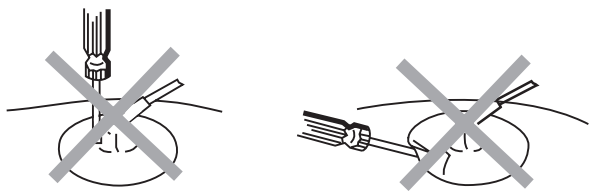
① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ

③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

- **HOW TO HANDLE THE ANODE-CAP**

① To prevent damaging the surface of the anode-cap do not use sharp materials.
② Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
③ A metal fitting called a shatter hook terminal is fitted inside the rubber cap. Do not turn the rubber foot over excessively this may cause damage if the shatter hook sticks out.



SECTION 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings :

Contrast	.....	80% [or remote control normal]
Brightness	.....	50%

Carry out the following adjustments in this order :

3-1. Beam Landing
3-2. Convergence
3-3. White balance
3-4. Focus

Note : Test equipment required

1. Color bar/pattern generator.
2. Degausser.
3. Oscilloscope.
4. Digital multimeter.
5. DC Power supply.

Preparation:

1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the TV set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input an all-white signal from the pattern generator. Set the Contrast and Brightness to normal.
2. Set the pattern generator raster signal to all Red.
3. Move the deflection yolk forward and adjust with the purity control so that the Red is at the centre and the Blue and Green take up equally sized areas on each side of the screen. [See Fig.3-1 - 3-3].
4. Move the deflection yolk forward and adjust so that the entire screen becomes Red. [See Fig.3-1].
5. Switch the raster signal to Blue, then to Green and verify the purity condition.
6. When the position of the deflection yolk has been determined, fasten the deflection yolk with the screws.
7. If the beam does not land correctly in all the corners, use magnets to correct it. [See Fig.3-4].

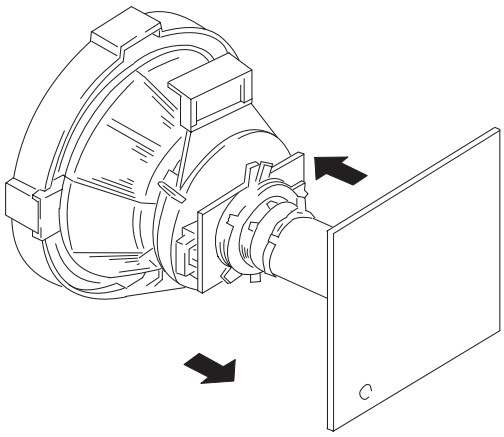
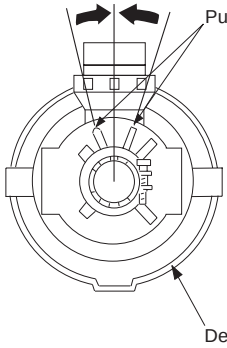


Fig. 3-1

Fig. 3-2



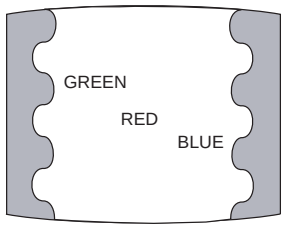


Fig. 3-3

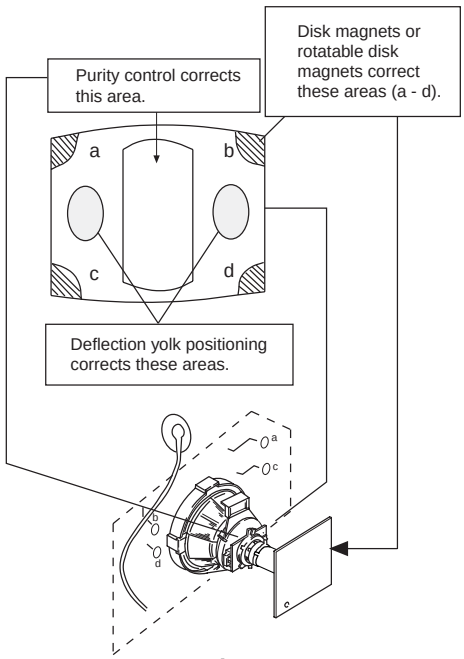


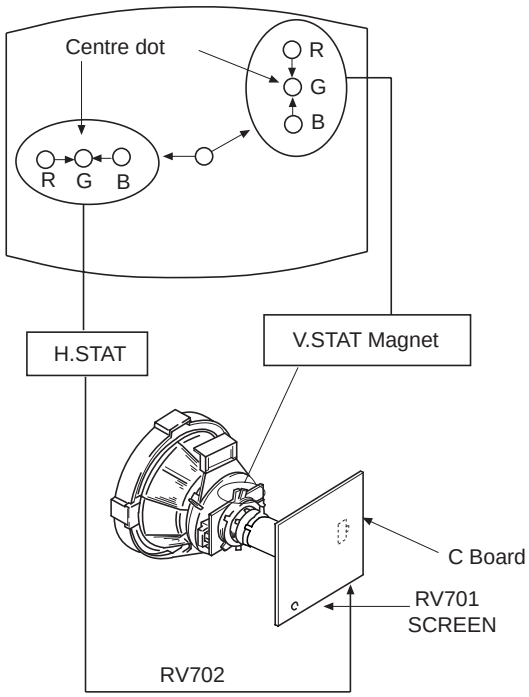
Fig. 3-4

3-2. CONVERGENCE

Preparation:

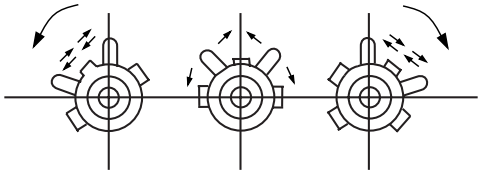
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the Brightness setting.
- Input a dot pattern from the pattern generator.

(1) Horizontal and vertical static convergence

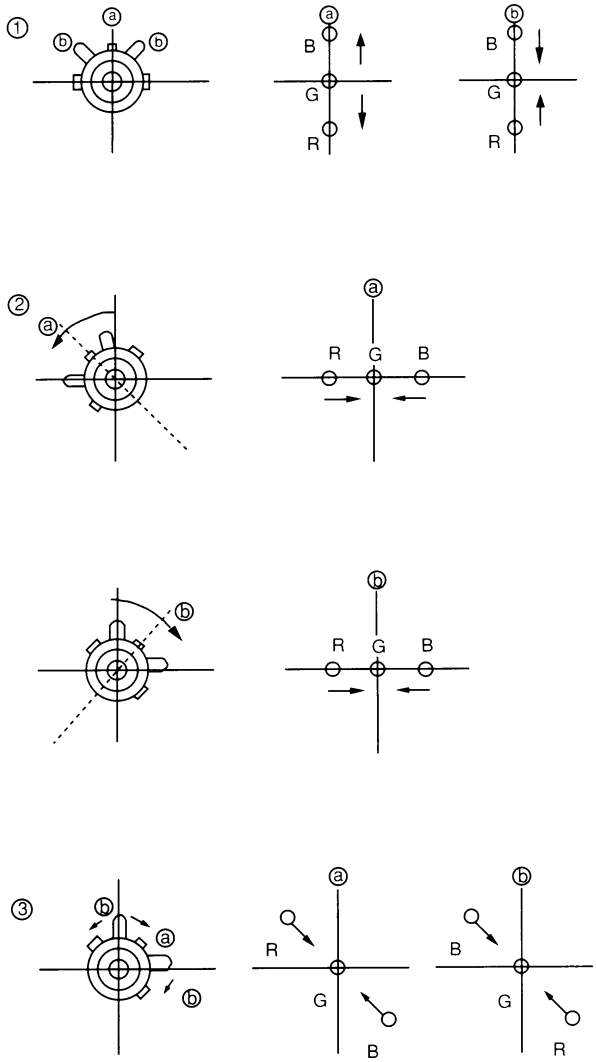


1. [Moving horizontally], adjust the H.STAT control so that the Red, Green and Blue points are on top of each other at the centre of the screen.
2. [Moving vertically], adjust the V.STAT magnet so that the Red, Green and Blue points are on top of each other at the centre of the screen.
3. If the H.STAT variable resistor is unable to bring the Red, Green and Blue points together at the centre of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner indicated below. [In this case, the H.STAT variable resistor and the V.STAT magnet influence each other].

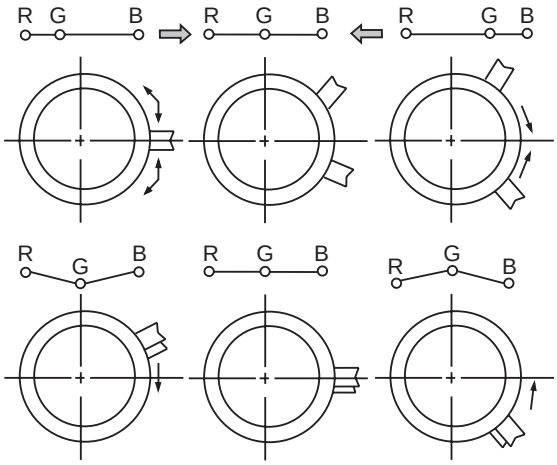
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

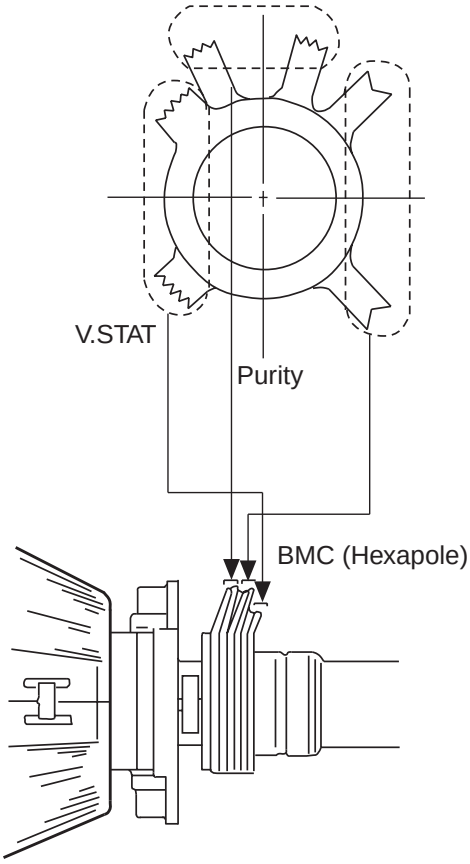


4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the Red, Green and Blue points move as indicated below.



(2) Operation of the BMC (Hexapole) magnet.





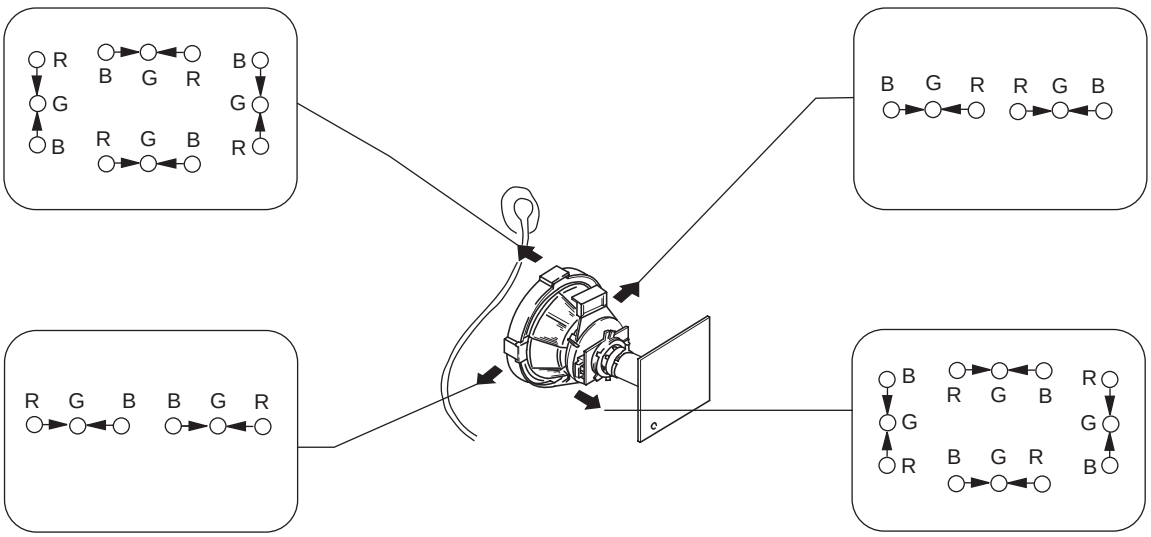
- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment whilst tracking.
  Use the H.STAT VR to adjust the Red, Green and Blue dots so that they coincide at the centre of the screen
  [by moving the dots in the horizontal direction].

(3) Dynamic convergence adjustment.

Preparation:

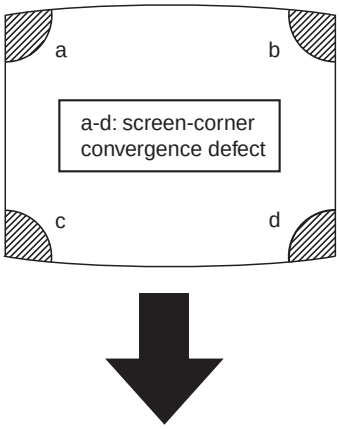
- Before starting this adjustment, adjust the horizontal and vertical static convergence.

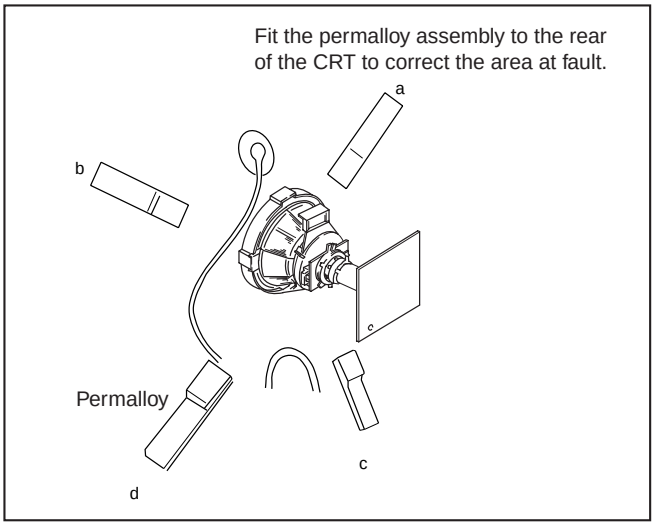
1. Slightly loosen the deflection yolk screws.
2. Remove the deflection yolk spacer.
3. Move the deflection yolk as indicated in the figure below and optimize the convergence.
4. Tighten the deflection yolk screws.
5. Re-install the deflection yolk spacer.

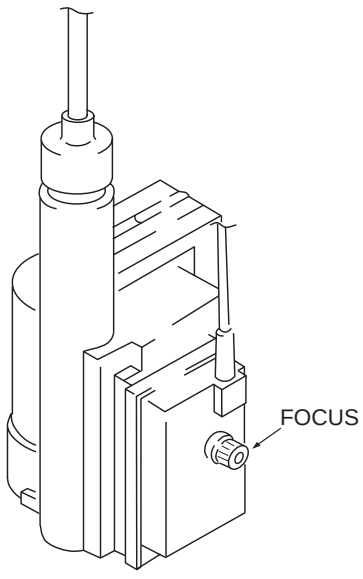


(4) Screen corner convergence.

- If you are unable to adjust the corner convergence properly, this can be corrected by the use of permalloy assemblies.







3-3. Screen [G2], White balance

G2 Setting

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 170Vdc from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust the G2 control [RV701 SCREEN] located on the C Board to the point just before the flyback return lines disappear.

White balance adjustment

1. Input a 'PAL' all-white signal from the pattern generator.
2. Enter into the Service Mode.
3. Enter into the 'Picture' service menu.
4. Select the 'Green drive' and adjust so that the White Balance becomes optimum.
5. Select the 'Blue drive' and adjust so that the White Balance becomes optimum.
6. Set the Picture to MIN.
7. Set the 'R-cut-off' to 07.
8. Adjust the 'G-cut-off', and the 'B-cut-off' so that the White Balance becomes optimum.
9. Press the ▭ button to return to TV operation.

PICTURE	
R - Drive	Adj
G - Drive	Adj
B - Drive	Adj
R - cut - off	Adj
G - cut - off	Adj
B - cut - off	Adj
ID - start	02
ID - stop	01
ID - level	01
Bellfo	Adj
Sub Colour	Adj
Sub Brightness	Adj

3-4. FOCUS

1. Input a Phillips colour pattern
2. Set the picture settings to normal.
3. Adjust the focus control located on the Flyback transformer to bring the centre of the screen into focus.

Note :Bring only the centre area of the screen into focus, switch to an all-white pattern and confirm that the magenta ring is hardly noticed. To obtain optimum focus balance the focus setting between optimum screen centre focus and a reduced magenta ring level.

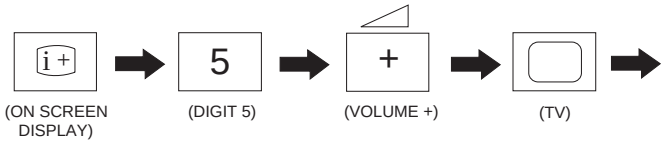
SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustments to this model can be performed using the supplied Remote Commander RM-883.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch and enter into the stand-by mode.
2. Press the following sequence of buttons on the Remote Commander.



- 'TT--' will appear in the upper right corner of the screen.
  Other status information will also be displayed.

3. Press 'MENU' on the remote commander to obtain the following menu on the screen.

TEST MENU

> Picture
  Geometry
  Sound
  TV Status
  AGC Adjust
  Technical

4. Move to the corresponding adjustment item using the 'Green' [up] or 'Blue' [down] buttons on the Remote Commander.
5. Press the 'Yellow' button to enter into the required menu item.
6. Press the 'Menu' button on the Remote Commander to quit the Service Mode when all adjustments have been completed.

Note : The data shown in the 'TV STATUS' table is dependant on destination and country.

PICTURE

R - Drive	Adj
G - Drive	Adj
B - Drive	Adj
R - cut - off	Adj
G - cut - off	Adj
B - cut - off	Adj
ID - start	02
ID - stop	01
ID - level	01
Bell-f0	Adj
Sub Colour	Adj
Sub Brightness	Adj

GEOMETRY

V centre	Adj
V size	Adj
V Lin	Adj
S Corr	Adj
H Cent	Adj
H Size	Adj
Pin Amp	Adj
Corner Pin	Adj
Pin Phase	Adj
V Bow	Adj
V Angle	Adj
Upper V Lin	Adj
Lower V Lin	Adj
Left HBLK	07
Right HBLK	07
CD Mode (AV)	01

SOUND

Nicam Error Lower	20
Nicam Error Upper	80
Nicam Error Rate	xx [Status only]
AGC Gain Level	xx [Status only]

TV STATUS

Destination	A/L/E/U/D/B/K/R
Text Language	East/West

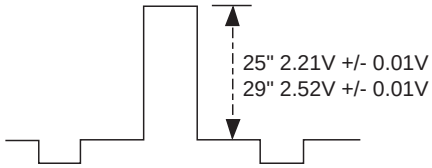
TECHNICAL	
GD - Secam	30
BD - Secam	31
RC - Secam	11
GC - Secam	19
BC - Secam	10
GD - Sports	30
BD - Sports	36
RC - Sports	14
GC - Sports	15
BC - Sports	17
Y - Delay (AV)	07

SUB BRIGHTNESS ADJUSTMENT

1. Input a Phillips colour pattern.
2. Press 'TEST' 'TEST' 13 on the Remote Commander.
3. Adjust the 'Sub-Brightness' data so that there is barely a difference between the 0 IRE and 10 IRE signal levels.

SUB CONTRAST ADJUSTMENT

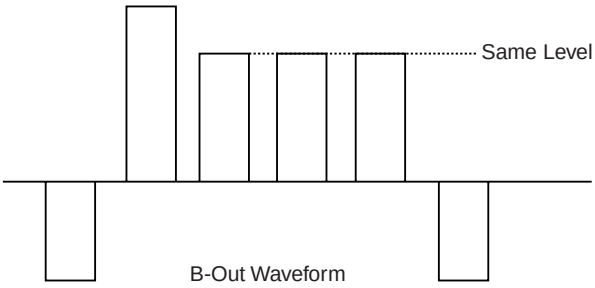
1. Input a video signal that contains a small 100% white area on a black background
2. Set the picture control to maximum. ['TT01']
3. Connect an oscilloscope to Pin 1 of CN504 [A Board].
4. Enter into the 'Picture' service menu.
5. Adjust the 'R - Drive' data to obtain the following waveform.



R - out Waveform

SUB COLOUR ADJUSTMENT

1. Receive a PAL colour bar signal.
2. Connect an oscilloscope to Pin 3 of CN504 [A Board].
3. Enter into the 'Picture' service menu.
4. Adjust the 'Sub Colour' data so that the Cyan, Magenta and Blue colour bars are of equal levels as indicated below.



B-Out Waveform

Note: Ensure that no signal is applied to the Antenna socket while carrying out the following IF adjustments.

SYSTEM B/G, D/K, I & L I.F ADJUSTMENT

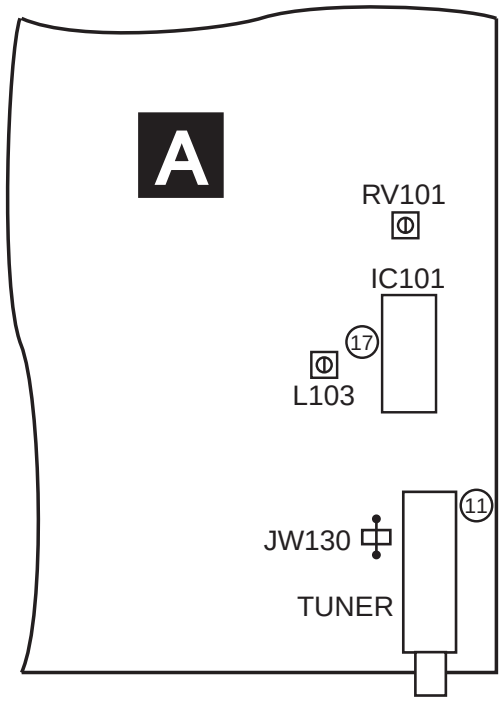
1. Input a 38.9Mhz carrier signal at 100dBuV to Pin 11 [IF output] of the tuner [TU101].
2. Measure the voltage at Pin 17 of [IC101].
3. Adjust L103 [A Board] to obtain a voltage of 2.5V +/- 0.3V.

SYSTEM L BAND 1 I.F ADJUSTMENT

1. Input a 34.0MHz carrier signal at 100dBuV to Pin 11 [IF output] of the tuner [TU101].
2. Select 'system L' + C00 [channel 00].
3. Measure the voltage at Pin 17 [IC101].
4. Adjust RV101 [A Board] to obtain a voltage of 2.5V +/- 0.3V.

TUNER AGC ADJUSTMENT

1. Receive a signal of 65dBuV / 75 ohm terminated, via the tuner antenna socket.
2. Connect a voltmeter to JW130 [A Board].
3. Enter into the 'Test Menu'.
4. Select the 'AGC Adjust' menu item.
5. Adjust the data using the Yellow and Green buttons on the Remote Commander to obtain a voltage of 3.0V +/- 0.2V.

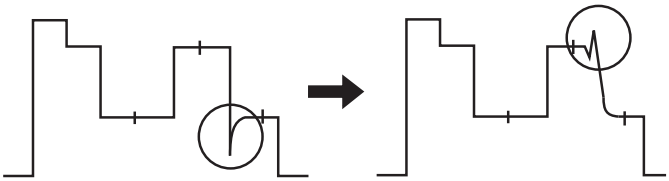


A Board component side

BELL FILTER ADJUSTMENT (Secam models only).

Note : Ensure that the TV set has been powered up for at least 1 minute to allow for drift before carrying out the following adjustment.

1. Input a video SECAM Colour Bar signal via AV1.
2. Connect an oscilloscope to pin 1 of CN504 [R-OUT] on the A board.
3. Enter into the 'Picture' menu and select 'Bell-f0'.
4. Decrease the register of 'Bell-f0' until the following waveform change between RED and BLUE is obtained.



Before adjustment After adjustment

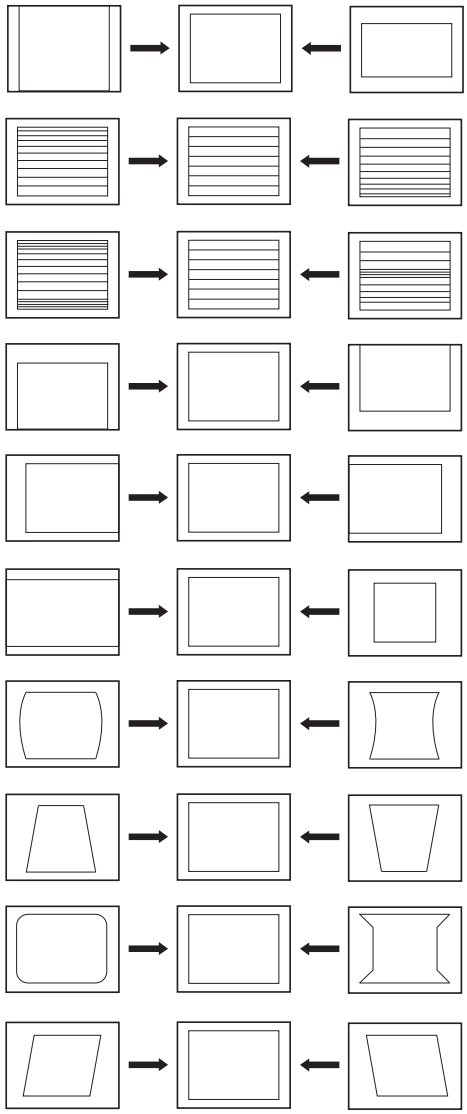
5. When the correct waveform has been obtained add an additional 7 steps to the register.

DEFLECTION SYSTEM ADJUSTMENT

1. Enter into the 'Geometry' service menu.
2. Select and adjust each item in order to obtain the optimum image.

GEOMETRY

V centre	Adj
V size	Adj
V Lin	Adj
S Corr	Adj
H Cent	Adj
H Size	Adj
Pin Amp	Adj
Corner Pin	Adj
Pin Phase	Adj
V Bow	Adj
V Angle	Adj
Upper V Lin	Adj
Lower V Lin	Adj
Left HBLK	07
Right HBLK	07
CD Mode (AV)	01



4-2. TEST MODE 2:

Is available by pressing ‘TEST’ button twice, OSD ‘TT’ appears. The functions described below are available by pressing the two numbers. To release the Test mode 2, press 0 twice, or switch the TV into stand-by mode, or press the 🖵 TV button on the remote commander.

00	Cancel Test mode
01	Picture maximum
02	Picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing mode On/Off
08	Set shipping conditions
09	Display TV Status
10	No function
11	Sub Picture Adjustment
12	Sub Colour Adjustment
13	Sub Brightness Adjustment
14	Text H position Adjustment
15	Rotation test
16	Picture level 50%
17	Audio mute ON
18	Disable Blanking
19	No function
20	No function
21	Destination A
22	Destination L
23	Destination E
24	Destination U
25	Destination D
26	Destination B
27	Destination K
28	Destination R
29	No function
30	No function
31	Auto shutoff Disable/Enable
32	RGB priority Disable/Enable
33	Rotation On/OFF
34	Text language East/West
35	Wide CRT/4:3 CRT
36	VM ON/OFF test
37	No function
38	No function
39	No function
40	No function
41	Re-initialize the NVM [Only when Prog=59]
42	Re-initialise geometry settings [Only when Prog=59]
43	No function
44	No function
45	No function
46	No function
47	No function
48	Set NVM as NON Virgin [Only when Prog=59]
49	Set NVM as Virgin [Only when Prog=59]
50	No function
51	No function
52	No function
53	No function
54	No function
55	No function
56	No function
57	No function
58	No function
59	No function
60	No function
61	Auto AGC Adjust
62	Alternative Dest B Autotuning
63	Enable/Disable Y/C input
64	Signal Quality Check for Auto Tune
65	Signal Quality NOT Checked for Auto Tune
66	No function
67	Manual AGC Adjust
68 -100	No function

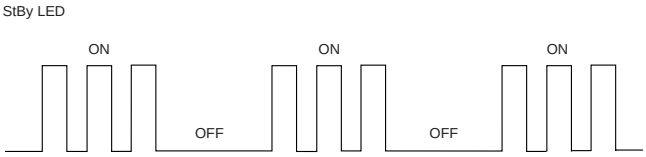
4-3. FE-1 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the FE-1 chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See Table 1., non fatal errors are reported using this method.
Each time the software detects an error it is stored within the NVM. See Table 2.

Table 1

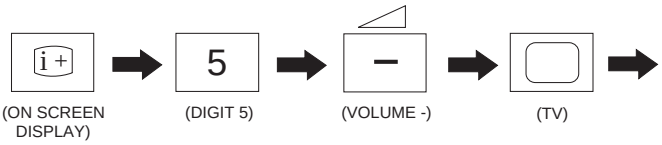
ERROR	LED ERROR COUNT
No error	00
Not allowed (may be confused with Sircs response flash!)	01
Protection circuit trip < ANY TIME >	02
Reserved	03
No vertical sync	04
AKB	05
IIC bus clock and/or data lines low at Power ON	06
NVM no IIC bus acknowledge at Power ON	07
Jungle controller no IIC acknowledge at Power ON	08
Tuner no acknowledge at Power ON	09
Sound processor no acknowledge at Power ON	10

Flash Timing Example : e.g. error number 3



How to enter into Table 2

1. Turn on the main power switch of the TV set and enter into the 'Standby Mode'.
2. Press the following sequence of buttons on the Remote Commander.



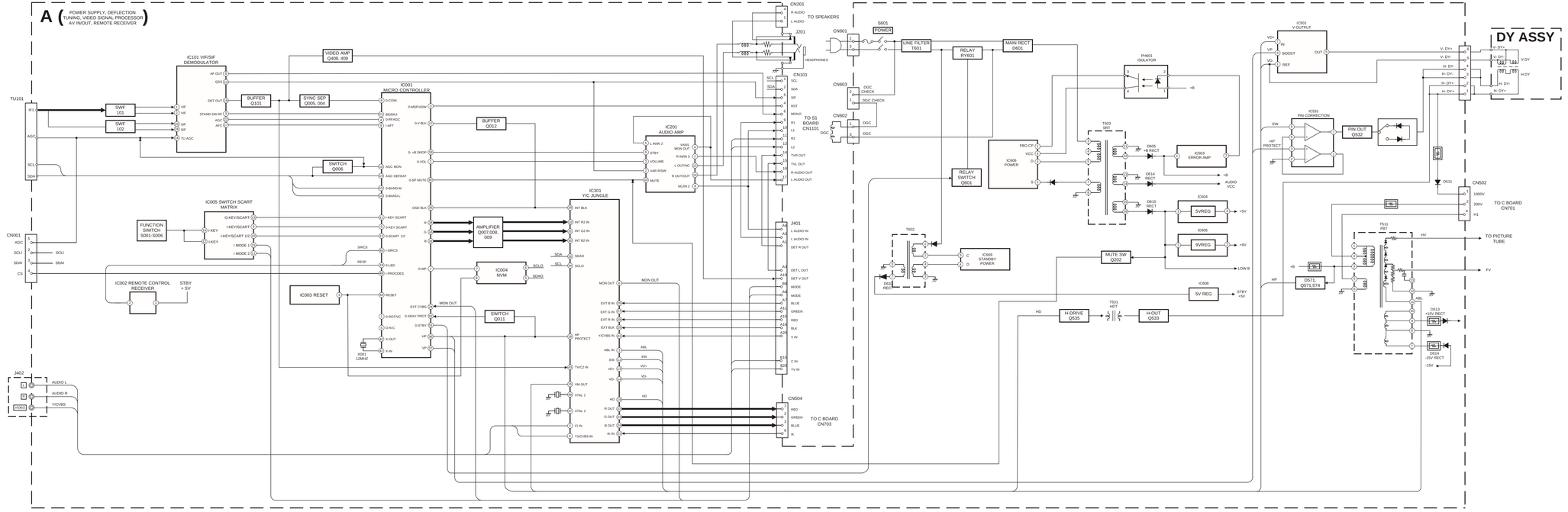
3. The following table will be displayed indicating the error count.

Table 2

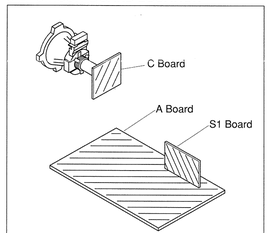
Error	Times
2	-
3	-
4	-
5	-
6	-
7	-
8	-
9	-
10	-

Note: To clear the error count data press '80' on the Remote commander.

5-1 BLOCK DIAGRAMS



5-2. CIRCUIT BOARD LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in µF unless otherwise noted.
- pF : µµF 50WV or less are not indicated except for electrolytic types.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm Electrical power rating : 1/4W

- Chip resistors are 1/10W
- All resistors are in ohms.
  k = 1000 ohms, M = 1,000,000 ohms
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital mutimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerences.
- : B + bus.
- : B - bus.
- : RF signal path.
- : earth - ground.
- : earth - chassis.

Reference Information

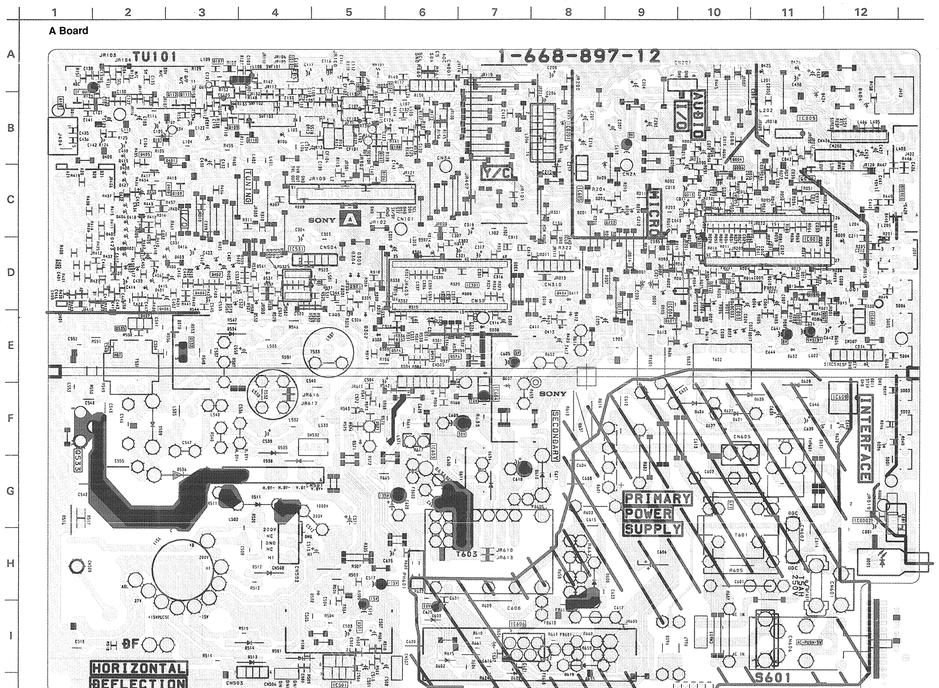
RESISTOR	**RN**	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
	RW	: NON FLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	**LF-8L**	: MICRO INDUCTOR
CAPACITOR	**TA**	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

Note : Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié. specified.

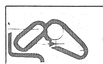
A [POWER SUPPLY, DEFLECTION, TUNING, PROCESSOR, VIDEO SIGNAL PROCESSOR, AV IN/OUT]

A Board



A BOARD

IC		Q574	E - 5	D418	C - 1
IC001	C - 11	Q575	E - 6	D419	B - 1
IC002	G - 12	Q576	E - 6	D420	C - 1
IC003	D - 10	Q601	D - 9	D423	C - 1
IC004	D - 9	**DIODE**		D424	A - 11
IC005	B - 11	D001	D - 9	D501	I - 4
IC101	A - 4	D002	D - 8	D502	H - 4
IC201	B - 7	D003	H - 12	D511	G - 3
IC301	D - 6	D004	D - 10	D512	H - 3
IC501	I - 4	D005	D - 9	D513	I - 3
IC531	D - 4	D007	D - 10	D514	I - 3
IC603	F - 6	D008	D - 7	D534	D - 3
IC604	E - 6	D009	C - 11	D535	F - 4
IC605	C - 8	D010	D - 10	D536	F - 2
IC606	I - 7	D011	E - 12	D538	F - 4
IC608	D - 12	D012	D - 11	D539	F - 2
IC609	E - 11	D014	D - 11	D541	D - 3
TRANSISTOR		D015	D - 11	D571	F - 5
Q004	B - 10	D017	D - 10	D573	D - 3
Q005	C - 10	D018	D - 7	D601	G - 8
Q006	B - 10	D023	E - 10	D602	I - 6
Q007	D - 11	D101	B - 2	D603	H - 6
Q008	D - 11	D201	C - 8	D605	G - 6
Q009	D - 11	D202	C - 8	D608	H - 8
Q010	D - 10	D204	C - 9	D610	F - 7
Q011	D - 8	D205	B - 8	D613	E - 9
Q012	B - 11	D206	B - 7	D614	G - 6
Q101	B - 5	D306	C - 6	D619	I - 8
Q202	C - 8	D307	C - 6	D621	F - 10
Q401	B - 2	D308	E - 5	D626	F - 9
Q408	B - 2	D402	C - 2	D627	F - 9
Q501	I - 5	D405	C - 1	D628	E - 10
Q532	E - 2	D406	C - 2	D629	E - 11
Q533	F - 1	D407	D - 2	D631	F - 11
Q535	D - 2	D408	B - 1	D632	E - 11
Q571	F - 5	D410	C - 3	D633	E - 9



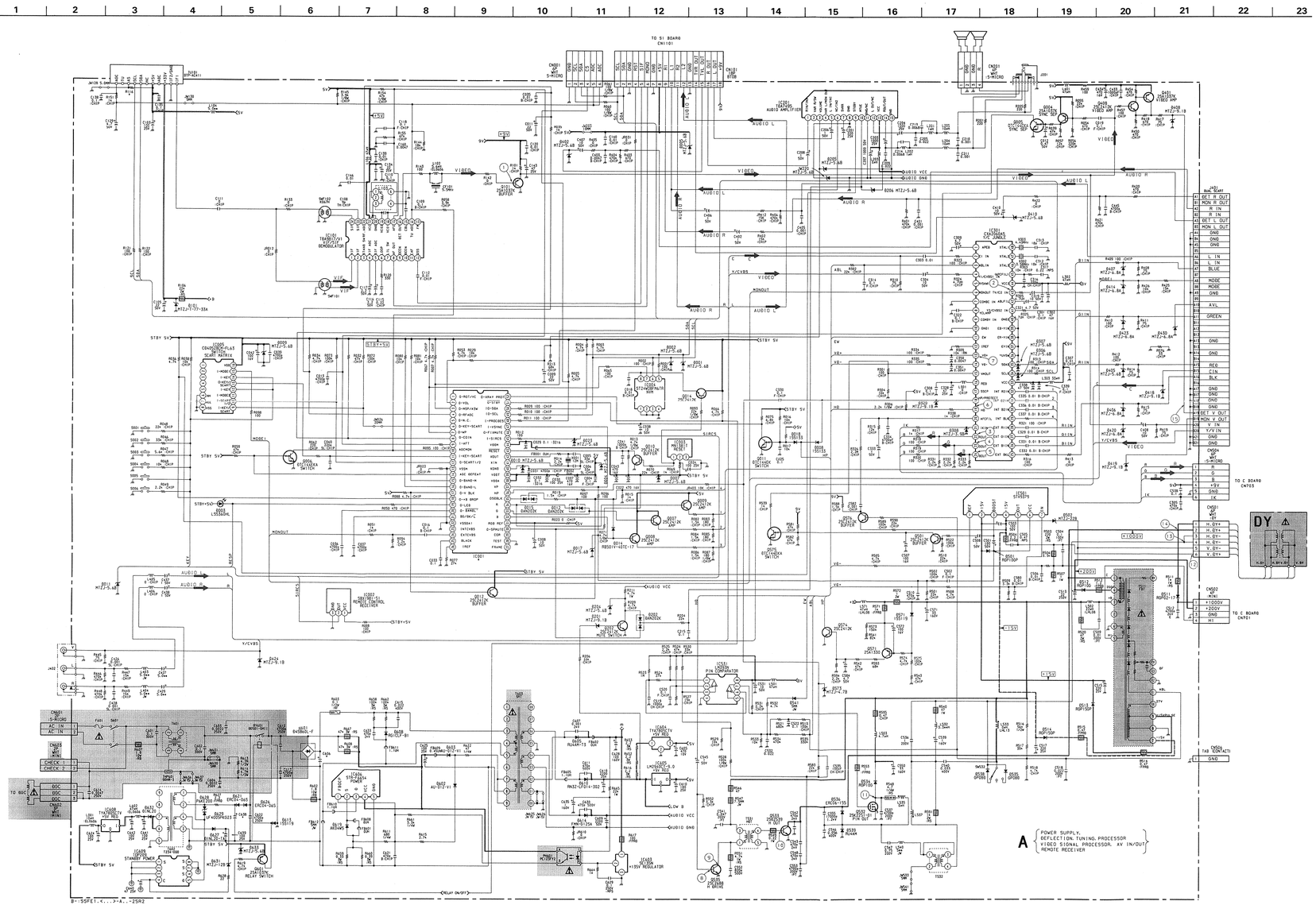
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

A BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	(B) Base	(C) Collector	(E) Emitter
Q004	4.7	0.7	4.9
Q005	0.3	4.8	-
Q006	-	2.0	-
Q007	-	4.9	-
Q008	-	4.9	-
Q009	-	4.9	-
Q010	0.6	-	-
Q011	0.5	-	-
Q012	-	4.8	-
Q101	2.0	-	2.6
Q202	0.6	-	-
Q401	8.0	3.4	8.6
Q408	2.6	8.0	2.0
Q532	7.3	3.1	-
Q533	-0.2	-152.0	-
Q535	-0.7	92.0	-
Q571	134.2	-	134.4
Q574	-	2.0	-
Q576	3.4	6.7	2.8
Q601	4.0	3.6	4.8

A BOARD IC VOLTAGE TABLE

IC Voltage Table								
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC001	4	0.8	IC101	5	2.8	IC301	20	3.8
	6	3.2		6	2.7		21	1.6
	7 - 8	4.8		7	3.9		22 - 24	1.5
	9	0.3		8	2.2		26 - 28	4.5
	10	2.0		12	2.0		30	4.5
	11	1.5		15	1.5		31 - 32	4.4
	12	4.7		17	0.3		33	8.1
	19	3.6		18 - 19	2.6		34 - 35	3.3
	20	4.3		21	4.7		41	5.0
	21	4.8		22	0.9		42	8.6
	24	2.5		23 - 24	3.2		43	5.0
	25	2.1	IC201	1	15.3		44	8.8
	26	2.4		5	15.3		45	5.2
	30	4.8		7	15.3		48	1.5
	31	5.0		10	4.5	IC501	1	1.4
	36	0.2		12	15.3		2	14.0
	37	0.1		13	31.2		3	-13.0
	38 - 39	5.0		14	15.3		4	-14.0
	41 - 42	2.2	IC301	1	3.3		5	0.2
	44	4.8		2	5.0		6	14.5
	45	2.8		3	4.3		7	1.4
	47	0.1		4	5.0	IC531	1	1.6
	48	2.4		6	4.4		2	1.7
	49	3.3		8	4.5		3	1.9
	50	3.1		11	3.9		5	2.8
	51	0.1		12	2.4		6	2.0
	5 - 6	4.8		13	3.5		7	7.3
IC004	7	3.3		14	3.4		8	8.8
	8	3.2		15	5.6	IC606	1 - 2	-60.0
	1 - 2	3.2		16	7.6		4	-51.3
IC101	3	4.8		18	1.3	IC609	4	-58.0
	4	3.0		19	2.4			



WAVEFORMS A BOARD

① PAL 1.0 Vp-p (H)	① SECAM 1.3 Vp-p (H)	② PAL 1.0 Vp-p (H)	② SECAM 1.3 Vp-p (H)	③ 2.6 Vp-p (H)
④ 2.6 Vp-p (H)	⑤ 0.5 Vp-p (H)	⑥ 5.0 Vp-p (H)	⑦ 1.4 Vp-p (H)	⑧ 2.0 Vp-p (H)
⑨ 146 Vp-p (V)	⑩ 12 Vp-p (H)	⑪ 142 Vp-p (H)	⑫ 56 Vp-p (V)	⑬ 290 Vp-p (H)
⑭ 1.1KVp-p (H)	⑮ PAL 2.4 Vp-p (H)	⑮ SECAM 3.0 Vp-p (H)		

A BOARD * MARK

Ref	25R2A	25R2D	25R2E	25R2K	25R2R
C606	220MF 400V	220MF 400V	220MF 400V	220MF 450V	220MF 450V
C638	10MF 400V	10MF 400V	10MF 400V	10MF 400V	10MF 450V
IC001	SAA5497PS/ M1A/076	SAA5497PS/ M1A/076	SAA5497PS/ M1A/074	SAA5497PS/ M1A/074	SAA5497PS/ M1A/075
R116	-	-	47K	47K	-

S1 BOARD IC VOLTAGE TABLE

IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC1101	4	3.4
	5	3.2
	7	4.8
	8	2.3
	9	4.8
	10 - 12	2.3
	13	4.8
	15	4.8
	16	4.8
	17	2.6
	18	3.5
	19	4.0
	33 - 34	2.4
	36 - 37	2.4
	38 - 39	4.8
	41 - 42	2.4
	44 - 48	2.4
	53 - 55	2.4
	59	4.8
	60 - 61	2.4
	64	4.8
IC1102	1	4.5
	2	4.1
	3	4.5
	6	4.3
	7	3.5
	8	9.0

S1 BOARD * MARK

Ref	25R2A	25R2D	25R2E	25R2K	25R2R
C1127	33PF	33PF	22PF	22PF	33PF
C1129	-	-	0.033MF	0.033MF	-
C1130	-	-	0.033MF	0.033MF	-
C1131	0.47MF	0.47MF	-	-	0.47MF
D1101	SHORT 0	SHORT 0	BB135	BB135	SHORT 0
IC1101	TDA9870	TDA9870	TDA9875P	TDA9875P	TDA9870
L1101	-	-	2.7UH	2.7UH	-
R1116	SHORT 0	SHORT 0	39K	39K	SHORT 0
R1117	-	-	10K	10K	-
R1118	-	-	20K	20K	-
R1164	-	-	10K	10K	-
R1165	SHORT 0	SHORT 0	-	-	SHORT 0

WAVEFORMS C BOARD

① 102 Vp-p (H)	② 95 Vp-p (H)
③ 93 Vp-p (H)	④ 24 Vp-p (H)

S1 [STEREO PROCESSOR]

S1 Board < Conductor Side >

S1 Board < Component Side >

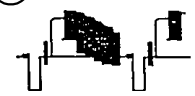
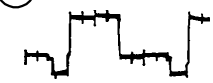
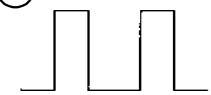
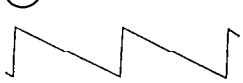
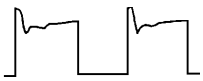
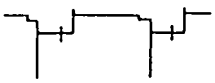
C BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	(B) Base	(C) Collector	(E) Emitter
Q702	1.5	8.3	1.1
Q703	8.8	169.8	8.3
Q704	169.5	1.9	209.5
Q705	1.5	8.3	1.1
Q706	8.8	170.7	8.3
Q707	170.5	1.9	215.7
Q708	1.5	8.3	1.0
Q709	8.9	171.3	8.3
Q710	171.2	1.9	206.3

C [R, G, B OUT]

C Board

WAVEFORMS A BOARD

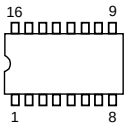
① PAL  1.0 Vp-p (H)	① SECAM 1.3 Vp-p (H)	② PAL 1.0 Vp-p (H)	② SECAM 1.3 Vp-p (H)	③ 2.6 Vp-p (H)
④  2.6 Vp-p (H)	⑤ 0.5 Vp-p (H)	⑥  5.0 Vp-p (H)	⑦  1.4 Vp-p (H)	⑧ 2.0 Vp-p (H)
⑨  146 Vp-p (V)	⑩  12 Vp-p (H)	⑪ 142 Vp-p (H)	⑫ 56 Vp-p (V)	⑬ 290 Vp-p (H)
⑭ 1.1KVp-p (H)	⑮ PAL 2.4 Vp-p (H)	⑮ SECAM 3.0 Vp-p (H)		

WAVEFORMS C BOARD

① 102 Vp-p (H)	② 95 Vp-p (H)
③ 93 Vp-p (H)	④ 24 Vp-p (H)

5-4 SEMICONDUCTORS

CD4052BCM



(TOP VIEW)

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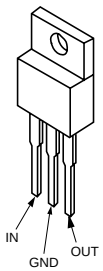

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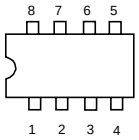
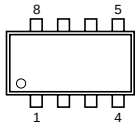
TDA2822M
TEA2124



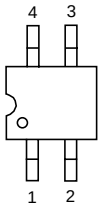
(TOP VIEW)

NJM4558M-TE2



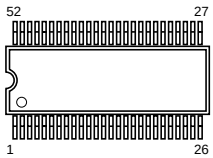
(TOP VIEW)

PST593C-MMP-4P



(TOP VIEW)

SAA5498PS/M1A/056
SAA5498PS/M1A/074
SAA5498PS/M1A/076



(TOP VIEW)

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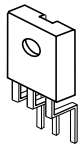
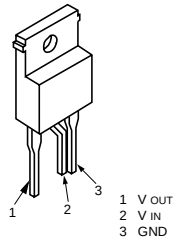
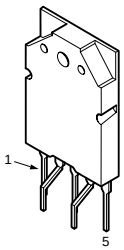


SE-135N
SE135N-LF12



STR-F6654



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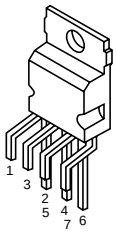

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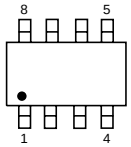
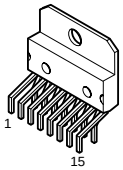
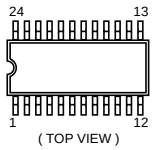


(TOP VIEW)

TDA7495

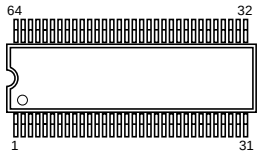


TDA9818-V1



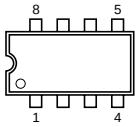
(TOP VIEW)

TDA9870



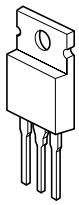
(TOP VIEW)

TOP209P



(TOP VIEW)

TYA7805CTV
TYA7809CTV



BF421-AMMO
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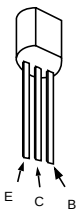
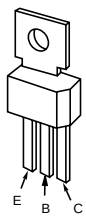
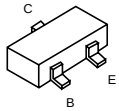


BF87-127



DTC114EK
DTC114EKA-T146
DTC144EKA-T-146R
2SA1037K-T-146-QR
2SC2412K-QR
2SC2412K-T-146-R



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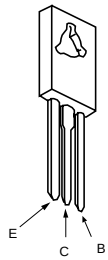
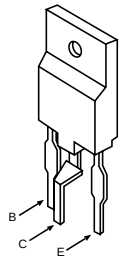


SD2539 (SONY)



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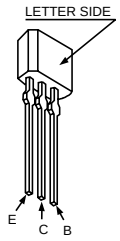
2SC1740S-RT



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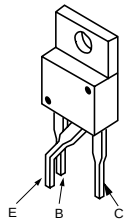

AK04-V1
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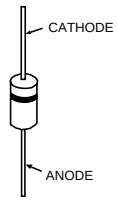
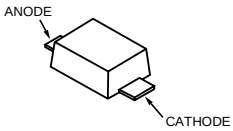
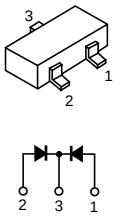
ERB44-06TP1
EG-1Z-V1
EL1Z
ERD28-06S
ERC06-15S
FMN-G12S
GP08DPKG23
GP15GPKG23
LSB360HL
RB501V-40TE-T7
RG1CLF-B1
RGPO2-17EL-6433
RGP15GPKG23
RGP10GPKG23
RU-4AM-T3



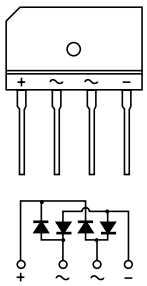
UF4005PKG23



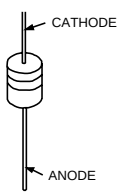
DAN202K
DAN202K-T146



D45B60L-F

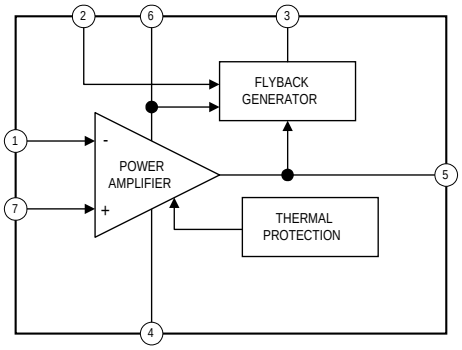


AK04WS
ERC04-6SE
MTZJ-T-77-4.7B
MTZJ-T-77-3.9B
MTZJ-T-77-5.6B
MTZJ-T-77-6.8A
MTZJ-T-77-9.1B
MTZJ-T-77-12B
MTZJ-T-77-22B
MTZJ-T-77-33A
P6KE200AG23
RD3.9ES-B2
RD5.6ESB2
RD6.8ES-B2
RD9.1ES-B3
RN3Z-LF014-302
1SS119-25TD
1SS133T-77

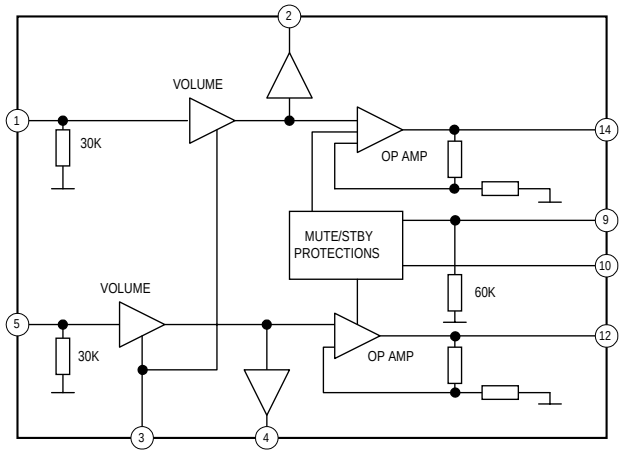


5-5. IC BLOCK DIAGRAMS

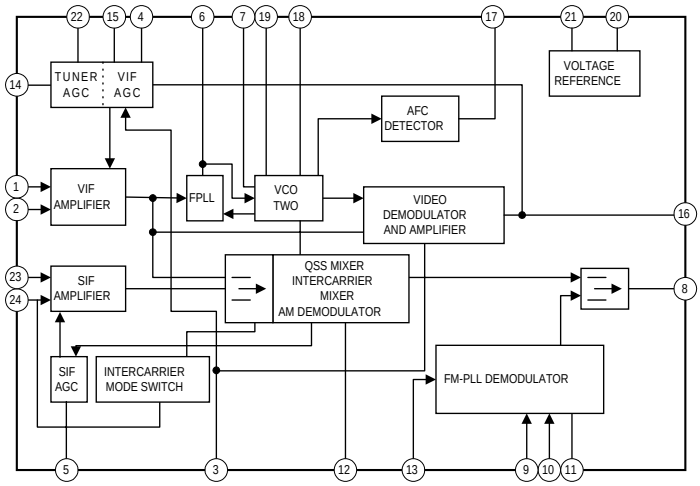
A BOARD IC501 STV 9379



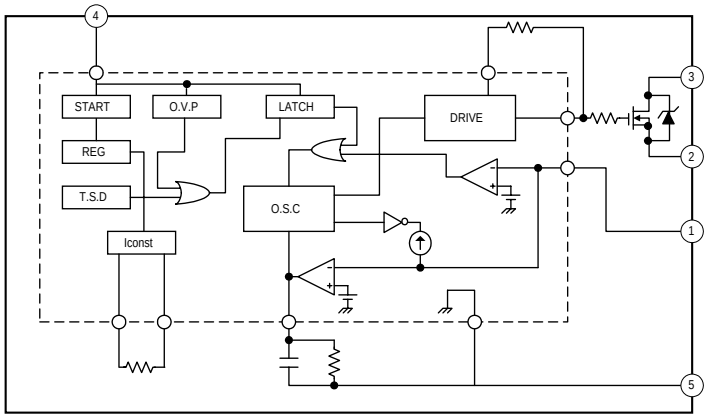
A BOARD IC201 TDA7495



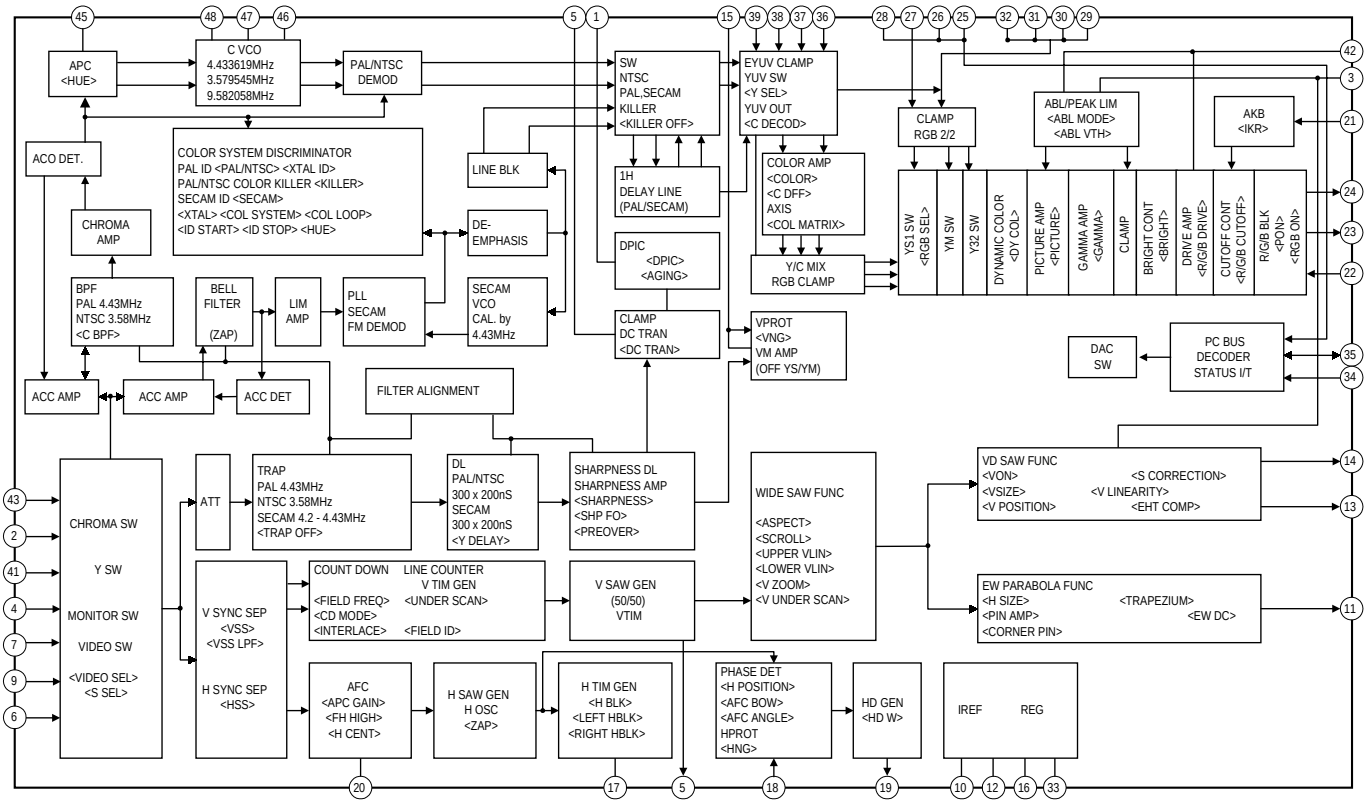
A BOARD IC101 TDA9817/V1



A BOARD IC606 STR-F6654



A BOARD IC301 CXA2060AS



SECTION 6
EXPLODED VIEWS

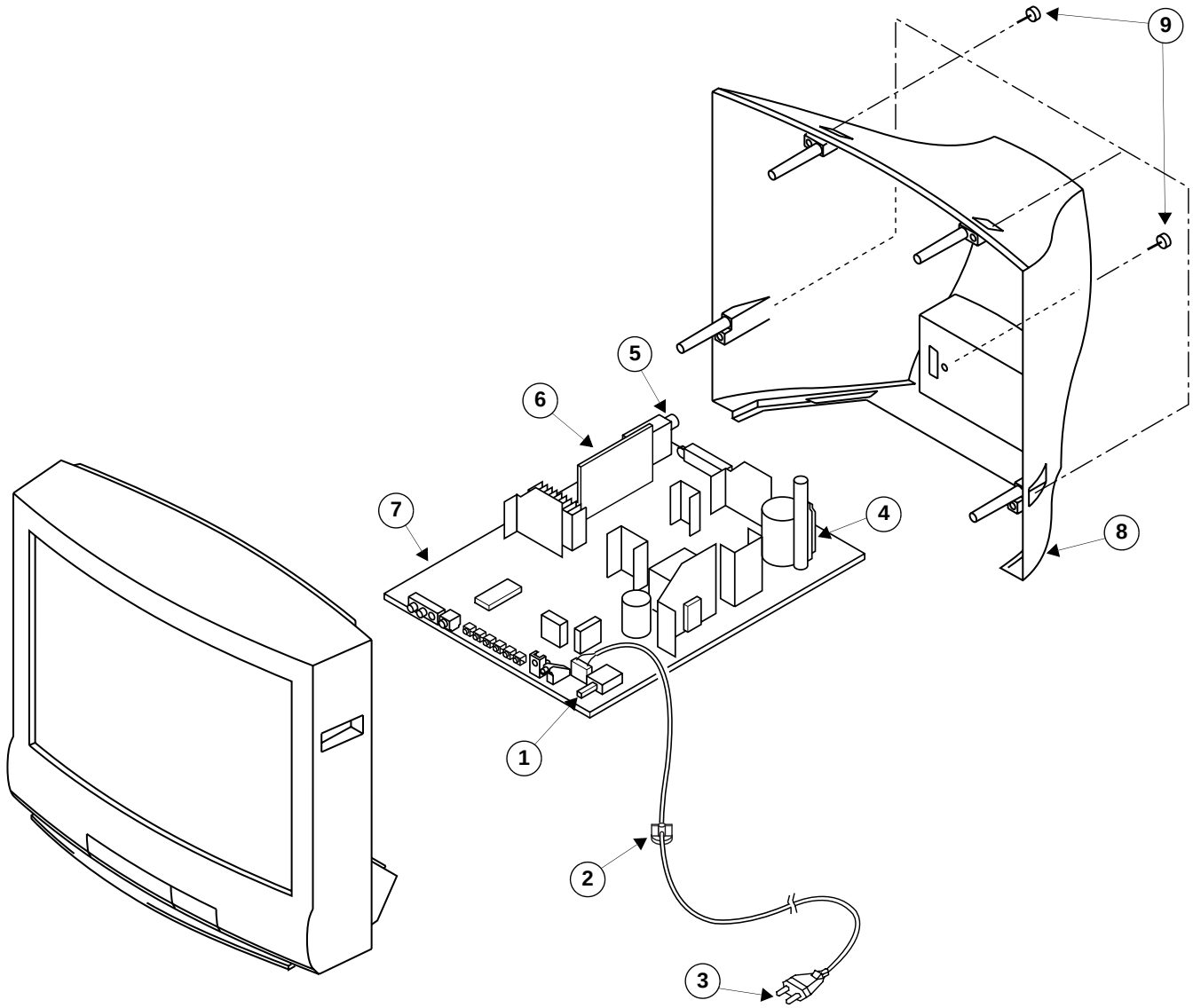
Note : Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

NOTE :

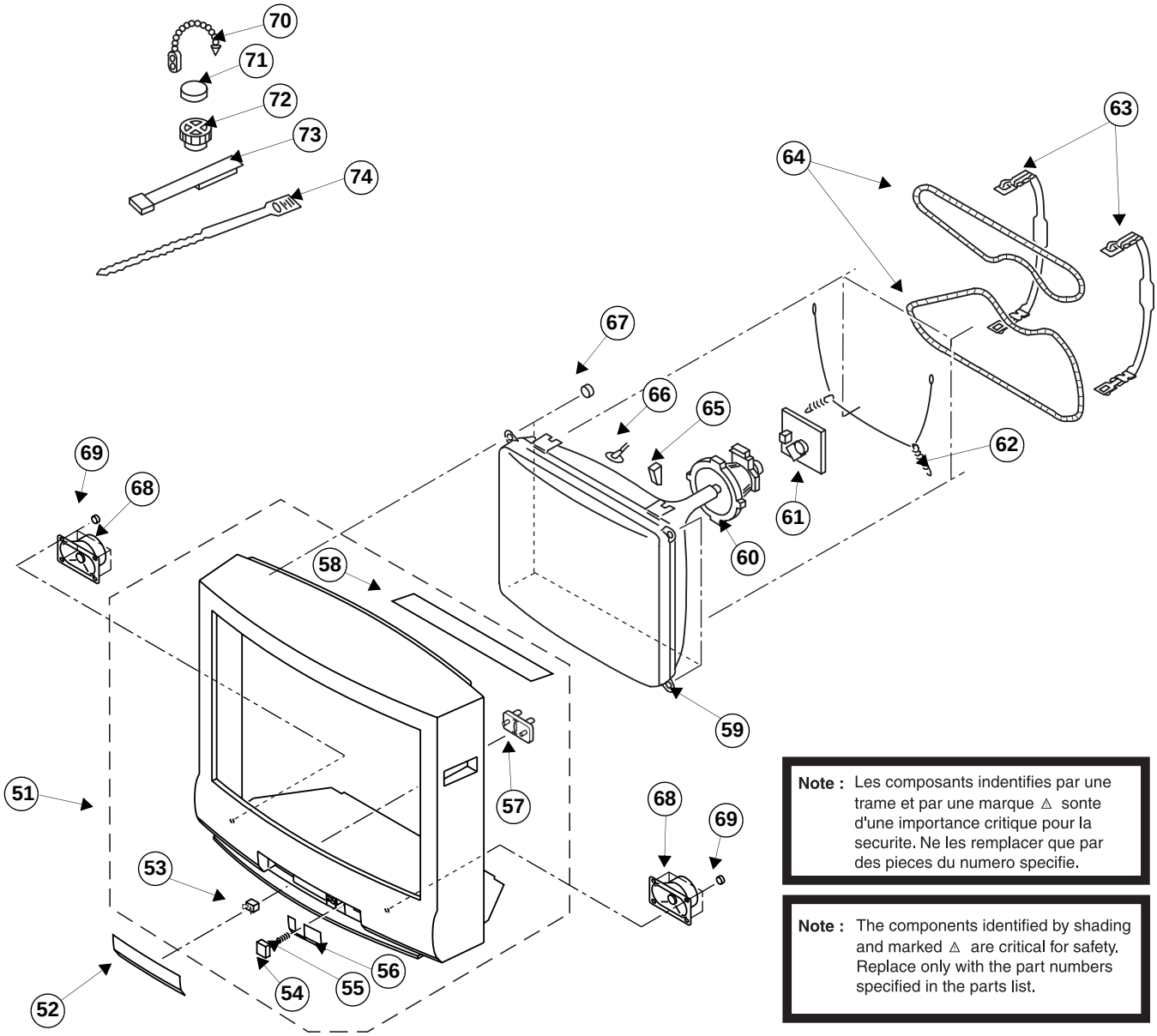
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

6-1. CHASSIS



REF. NO.		PART.NO	DESCRIPTION	REMARK
1	⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
2		*4-202-531-01	AC CORD LOCK (SC)	
3	⚠	1-765-286-11	CORD, POWER	
4	⚠	1-453-264-11	TRANSFORMER ASSY, FLYBACK (NX-1680/U2B4)	
5		8-598-432-00	TUNER (FSS BTP-AC411)	
6		*A-1652-053-A	S1 BOARD, COMPLETE (KV-25R2A/25R2D/25R2R)	
		*A-1652-052-A	S1 BOARD, COMPLETE (KV-25R2E/25R2K)	
7		*A-1632-791-A	A BOARD, COMPLETE (KV-25R2A)	
		*A-1632-790-A	A BOARD, COMPLETE (KV-25R2D)	
		*A-1632-789-A	A BOARD, COMPLETE (KV-25R2E)	
		*A-1632-792-A	A BOARD, COMPLETE (KV-25R2K)	
		*A-1632-793-A	A BOARD, COMPLETE (KV-25R2R)	
8		4-203-259-21	COVER, REAR	
9		7-685-663-71	SCREW + BVTP 4X16 TYPE 2 IT-3	

6-2. PICTURE TUBE



Note : Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF. NO.		PART.NO	DESCRIPTION	REMARK
51		X-4200-407-1	BEZNET ASSY	53-58
52		4-204-211-31	DOOR, PRINTED (KV-25R2A/25R2D/25R2R)	
		4-204-211-21	DOOR, PRINTED (KV-25R2E/25R2K)	
53		4-047-464-01	CATCHER, PUSH	
54		4-204-216-01	BUTTON, POWER	
55		4-202-964-01	SPRING	
56		4-204-215-01	WINDOW	
57		4-204-213-01	GUIDE LIGHT	
58		*4-203-553-01	SHEET, BLOTTING	
59	⚠	8-733-254-05	PICTURE TUBE (SD-257) (M60LCS60X)	
60	⚠	8-451-404-23	DEFLECTION YOKE (Y25GXABA)	
61		*A-1638-117-A	C BOARD, COMPLETE	
62		4-369-318-21	SPRING, TENSION	
63		4-202-745-01	HOLDER, DGC (25)	
64	⚠	1-416-042-11	COIL, DEGAUSS	
65		3-704-495-01	SPACER, DY	
66	⚠	1-251-317-31	CAP ASSY, HIGH VOLTAGE	
67		4-203-043-01	SCREW (PT)	
68		1-529-140-11	SPEAKER (5.7X12.6CM)	
69		7-685-648-71	SCREW +BVTP 3X12	
70		4-308-870-00	CLIP, LEAD WIRE	
71		1-425-032-00	MAGNET, DISK; 10MM Ø	
72		1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
73		X-4387-214-1	PERMALLOY ASSY, CORRECTION	
74		3-701-007-00	BAND, BINDING	

SECTION 7
ELECTRICAL PARTS LIST

When indicating parts by reference number, please include the board name.

CAPACITORS MF : mF, PF : mmF

COILS MMH : mH , uH

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- RESISTORS
- All resistors are in ohms.
- F : nonflammable.

Note : Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

A

REF. NO.	PART.NO	DESCRIPTION		REMARK
	A-1632-791-A	A BOARD, COMPLETE (KV-25R2A)		
		**********		
	A-1632-790-A	A BOARD, COMPLETE (KV-25R2D)		
		**********		
	A-1632-789-A	A BOARD, COMPLETE (KV-25R2E)		
		**********		
	A-1632-792-A	A BOARD, COMPLETE (KV-25R2K)		
		**********		
	A-1632-793-A	A BOARD, COMPLETE (KV-25R2R)		
		**********		
	*4-203-258-01	HOLDER, LED		
	4-382-854-11	SCREW (M3X10), P, SW (+)		
		< CAPACITOR >		
C004	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C005	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C006	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C007	1-126-935-11	ELECT 470MF	20%	16V
C008	1-126-964-11	ELECT 10MF	20%	50V
C009	1-126-965-11	ELECT 22MF	20%	50V
C011	1-126-965-11	ELECT 22MF	20%	50V
C012	1-126-959-11	ELECT 0.47MF	20%	50V
C013	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C016	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C018	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C019	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C022	1-126-935-11	ELECT 470MF	20%	16V
C024	1-104-665-11	ELECT 100MF	20%	25V
C025	1-130-495-00	FILM 0.1MF	5%	50V
C029	1-163-077-00	CERAMIC CHIP 0.1MF	10%	25V
C030	1-104-665-11	ELECT 100MF	20%	25V
C031	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C032	1-163-077-00	CERAMIC CHIP 0.1MF	10%	25V
C033	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C035	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C036	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C037	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C038	1-126-964-11	ELECT 10MF	20%	50V
C039	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C040	1-163-189-00	CERAMIC CHIP 220PF	5%	50V
C041	1-163-205-00	CERAMIC CHIP 0.001MF	10%	50V
C042	1-126-933-11	ELECT 100MF	20%	16V
C043	1-126-935-11	ELECT 470MF	20%	16V
C103	1-104-665-11	ELECT 100MF	20%	25V
C105	1-126-965-11	ELECT 22MF	20%	50V
C108	1-163-465-11	CERAMIC CHIP 9PF	0.25PF	50V
C109	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C110	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C111	1-216-296-00	SHORT 0		
C112	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C115	1-164-489-11	CERAMIC CHIP 0.22MF	10%	16V
C116	1-126-961-11	ELECT 2.2MF	20%	50V
C117	1-126-961-11	ELECT 2.2MF	20%	50V
C118	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C120	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C129	1-126-963-11	ELECT 4.7MF	20%	50V
C134	1-128-551-11	ELECT 22MF	20%	25V
C135	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C138	1-165-319-11	CERAMIC CHIP 0.1MF		50V
C139	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C140	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C143	1-104-664-11	ELECT 47MF	20%	25V
C146	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C160	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C201	1-104-666-11	ELECT 220MF	20%	25V
C203	1-126-942-61	ELECT 1000MF	20%	25V
C204	1-126-942-61	ELECT 1000MF	20%	25V
C205	1-163-033-91	CERAMIC CHIP 0.022MF		50V
C206	1-126-960-11	ELECT 1MF	20%	50V
C207	1-126-972-11	ELECT 1000MF	20%	50V
C208	1-126-960-11	ELECT 1MF	20%	50V

A

REF. NO.	PART.NO	DESCRIPTION		REMARK
C209	1-163-033-91	CERAMIC CHIP 0.022MF		50V
C210	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C211	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C213	1-163-019-00	CERAMIC CHIP 0.0068MF	10%	50V
C214	1-163-019-00	CERAMIC CHIP 0.0068MF	10%	50V
C215	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C301	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C302	1-126-967-11	ELECT 47MF	20%	16V
C303	1-101-004-00	CERAMIC 0.01MF		50V
C304	1-126-964-11	ELECT 10MF	20%	50V
C305	1-163-005-11	CERAMIC CHIP 470PF	10%	50V
C307	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C308	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C309	1-126-963-11	ELECT 4.7MF	20%	50V
C312	1-163-099-00	CERAMIC CHIP 18PF	5%	50V
C313	1-163-099-00	CERAMIC CHIP 18PF	5%	50V
C314	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C316	1-163-259-91	CERAMIC CHIP 220PF	5%	50V
C317	1-136-169-00	FILM 0.22MF	5%	50V
C319	1-126-964-11	ELECT 10MF	20%	50V
C321	1-126-963-11	ELECT 4.7MF	20%	50V
C322	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C328	1-104-664-11	ELECT 47MF	20%	25V
C329	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C330	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C331	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C332	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C333	1-126-960-11	ELECT 1MF	20%	50V
C334	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C335	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C336	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C337	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C338	1-126-967-11	ELECT 47MF	20%	50V
C339	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C350	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C351	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C401	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C402	1-126-960-11	ELECT 1MF	20%	50V
C403	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C405	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C406	1-126-960-11	ELECT 1MF	20%	50V
C407	1-126-964-11	ELECT 10MF	20%	50V
C408	1-126-964-11	ELECT 10MF	20%	50V
C410	1-126-964-11	ELECT 10MF	20%	50V
C426	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C427	1-535-303-00	LEAD, JUMPER (5.0MM)		
C428	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C429	1-535-303-00	LEAD, JUMPER (5.0MM)		
C433	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C434	1-126-935-11	ELECT 470MF	20%	16V
C437	1-124-903-11	ELECT 1MF	20%	50V
C438	1-124-903-11	ELECT 1MF	20%	50V
C445	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C501	1-126-968-11	ELECT 100MF	20%	50V
C502	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C503	1-126-968-11	ELECT 100MF	20%	50V
C504	1-106-220-00	MYLAR 0.1MF	10%	100V
C505	1-136-173-00	FILM 0.47MF	5%	50V
C506	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C507	1-126-933-11	ELECT 100MF	20%	16V
C508	1-126-960-11	ELECT 1MF	20%	50V
C509	1-107-364-11	MYLAR 0.01MF	10%	200V
C510	1-163-005-11	CERAMIC CHIP 470PF	10%	50V
C512	1-162-114-00	CERAMIC 0.0047MF		2KV
C513	1-107-662-11	ELECT 22MF	20%	250V
C515	1-104-666-11	ELECT 220MF	20%	25V
C517	1-104-666-11	ELECT 220MF	20%	25V
C518	1-106-375-12	MYLAR 0.022MF	99%	200V
C519	1-163-275-11	CERAMIC CHIP 0.001MF	5%	50V
C520	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C522	1-130-495-00	FILM 0.1MF	5%	50V
C531	1-126-964-11	ELECT 10MF	20%	50V
C532	1-163-037-11	CERAMIC CHIP 0.022MF	10%	50V
C535	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C536	1-115-522-11	FILM 1MF	5%	200V
C537	1-137-417-11	MYLAR 0.0047MF	10%	200V
C538	1-165-319-11	CERAMIC CHIP 0.1MF		50V
C539	1-111-230-11	ELECT 1MF	20%	160V
C540	1-136-206-11	FILM 0.033MF	10%	400V
C541	1-106-383-00	MYLAR 0.047MF	10%	200V
C542	1-162-134-11	CERAMIC 470PF	10%	2KV
C543	1-162-134-11	CERAMIC 470PF	10%	2KV
C545	1-126-960-11	ELECT 1MF	20%	50V
C546	1-130-895-00	FILM 0.056MF	5%	400V
C547	1-117-813-11	FILM 0.75MF	5%	200V
C548	1-162-134-11	CERAMIC 470PF	10%	2KV
C550	1-107-638-11	ELECT 33MF	20%	160V
C552	1-102-212-00	CERAMIC 820PF	10%	500V
C553	1-137-417-11	MYLAR 0.0047MF	10%	200V
C555	1-117-717-11	FILM 17000PF	3%	1.2KV
C571	1-123-024-21	ELECT 33MF		160V
C572	1-128-526-11	ELECT 100MF	20%	16V
C580	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C582	1-163-275-11	CERAMIC CHIP 0.001MF	5%	50V

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

A

REF. NO.		PART.NO	DESCRIPTION			REMARK
C584		1-126-963-11	ELECT	4.7MF	20%	50V
C601	⚠	1-107-563-11	FILM	0.1MF	20%	300V
C602	⚠	1-107-563-11	FILM	0.1MF	20%	300V
C603	⚠	1-117-700-51	CERAMIC	0.0022MF	99%	250V
C604	⚠	1-117-700-51	CERAMIC	0.0022MF	99%	250V
C605		1-104-652-11	ELECT	470MF	20%	10V
C606		1-125-318-00	ELECT(BLOCK)	220MF	20%	400V
						(KV-25R2A/25R2D/25R2E)
		1-117-751-11	ELECT(BLOCK)	220MF	20%	450V
						(KV-25R2K/25R2R)
C607		1-161-754-00	CERAMIC	0.001MF	10%	2KV
C609		1-107-915-51	ELECT	2200MF	20%	50V
C610		1-104-665-11	ELECT	100MF	20%	25V
C611		1-165-127-11	CERAMIC	470PF	10%	500V
C612	⚠	1-161-964-51	CERAMIC	0.0047MF		250V
C613	⚠	1-161-964-51	CERAMIC	0.0047MF		250V
C614	⚠	1-162-599-12	CERAMIC	0.0047MF		250V
C615		1-130-202-00	FILM	0.022MF	10%	400V
C618		1-107-890-11	ELECT	2200MF	20%	25V
C621		1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C622	⚠	1-161-964-51	CERAMIC	0.0047MF		250V
C624		1-104-665-11	ELECT	100MF	20%	25V
C625		1-104-665-11	ELECT	100MF	20%	25V
C628		1-124-347-00	ELECT	100MF	20%	160V
C629		1-136-189-00	FILM	0.1MF	10%	250V
C630		1-165-127-11	CERAMIC	470PF	10%	500V
C633		1-104-332-11	CERAMIC	470PF	10%	2KV
C635		1-107-675-11	ELECT	1MF	20%	160V
C638		1-107-670-11	ELECT	10MF	20%	400V
						(KV-25R2A/25R2D/25R2E/25R2K)
		1-107-679-91	ELECT	10MF	20%	450V
						(KV-25R2R)
C639		1-104-665-11	ELECT	100MF	20%	25V
C640		1-104-664-11	ELECT	47MF	20%	25V
C641		1-104-665-11	ELECT	100MF	20%	25V
C642		1-104-665-11	ELECT	100MF	20%	25V
			< FILTER >			
CF101		1-404-134-00	TRAP, CERAMIC (5.5MHZ)			
SWF101		1-767-874-11	FILTER, SURFACE WAVE			
SWF102		1-767-873-11	FILTER, SURFACE WAVE			
			< CONNECTOR >			
CN001		*1-564-508-11	PLUG, CONNECTOR 5P			
CN101		1-766-922-11	CONNECTOR, BOARD TO BOARD 18P			
CN201		*1-564-507-11	PLUG, CONNECTOR 4P			
CN501		*1-580-798-11	CONNECTOR PIN (DY)			
CN502		1-784-633-11	PIN, CONNECTOR 4P			
CN504		*1-564-509-11	PLUG, CONNECTOR 6P			
CN506		1-695-915-11	TAB (CONTACT)			
CN601	⚠	*1-580-843-11	PIN, CONNECTOR (POWER)			
CN602	⚠	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
CN603	⚠	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			
			< DIODE >			
D001		8-719-109-89	DIODE RD5.6ESB2			
D002		8-719-109-89	DIODE RD5.6ESB2			
D003		8-719-057-56	DIODE LS5360HL			
D004		8-719-109-89	DIODE RD5.6ESB2			
D005		8-719-109-89	DIODE RD5.6ESB2			
D007		8-719-109-89	DIODE RD5.6ESB2			
D008		8-719-991-33	DIODE 1SS133T-77			
D009		8-719-109-89	DIODE RD5.6ESB2			
D010		8-719-109-89	DIODE RD5.6ESB2			
D011		8-719-109-89	DIODE RD5.6ESB2			
D012		8-719-914-43	DIODE DAN202K			
D014		8-719-058-24	DIODE RB501V-40TE-17			
D015		8-719-914-43	DIODE DAN202K			
D017		8-719-109-89	DIODE RD5.6ESB2			
D018		8-719-991-33	DIODE 1SS133T-77			
D023		8-719-109-89	DIODE RD5.6ESB2			
D101		8-719-982-24	DIODE MTZJ-33A			
D201		8-719-929-15	DIODE HZS9.1NB2			
D202		8-719-914-43	DIODE DAN202K			
D204		8-719-109-89	DIODE RD5.6ESB2			
D205		8-719-109-89	DIODE RD5.6ESB2			
D206		8-719-109-89	DIODE RD5.6ESB2			
D306		8-719-109-89	DIODE RD5.6ESB2			
D307		8-719-109-89	DIODE RD5.6ESB2			
D308		8-719-109-72	DIODE RD3.9ES-B2			
D320		8-719-929-15	DIODE HZS9.1NB2			
D402		8-719-109-89	DIODE RD5.6ESB2			
D405		8-719-109-89	DIODE RD5.6ESB2			
D406		8-719-109-97	DIODE RD6.8ES-B2			
D407		8-719-109-97	DIODE RD6.8ES-B2			
D408		8-719-929-15	DIODE HZS9.1NB2			
D410		8-719-109-89	DIODE RD5.6ESB2			
D414		8-719-109-97	DIODE RD6.8ES-B2			
D418		8-719-929-15	DIODE HZS9.1NB2			
D419		8-719-929-15	DIODE HZS9.1NB2			
D420		8-719-109-97	DIODE RD6.8ES-B2			
D423		8-719-109-97	DIODE RD6.8ES-B2			
D424		8-719-929-15	DIODE HZS9.1NB2			
D430		8-719-109-97	DIODE RD6.8ES-B2			

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

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REF. NO.	PART.NO	DESCRIPTION	REMARK
D501	8-719-302-43	DIODE EL1Z	
D502	8-719-924-13	DIODE MTZJ-T-77-22B	
D511	8-719-028-72	DIODE RGP02-17EL-6433	
D512	8-719-302-43	DIODE EL1Z	
D513	8-719-979-85	DIODE EGP20G	
D514	8-719-979-85	DIODE EGP20G	
D534	8-719-302-43	DIODE EL1Z	
D535	8-719-908-03	DIODE GP08D	
D536	8-719-945-80	DIODE ERC06-15S	
D538	8-719-908-03	DIODE GP08D	
D539	8-719-312-10	DIODE RU4AM-T3	
D541	1-535-303-00	LEAD, JUMPER (5.0MM)	
D571	8-719-911-19	DIODE 1SS119-25	
D573	8-719-921-40	DIODE MTZJ-4.7C	
D601	8-719-510-53	DIODE D4SB60L	
D602	8-719-046-74	DIODE AU-01Z-V1	
D603	8-719-046-74	DIODE AU-01Z-V1	
D605	8-719-312-10	DIODE RU4AM-T3	
D608	8-719-067-88	DIODE RG1CLF-B1	
D610	8-719-067-78	DIODE RN3Z-LF014-302	
D613	8-719-911-19	DIODE 1SS119-25	
D614	8-719-058-38	DIODE FMN-G12S	
D619	8-719-043-76	DIODE AK04V0	
D621	8-719-068-00	DIODE ERC04-06SE	
D626	8-719-068-00	DIODE ERC04-06SE	
D627	8-719-510-26	DIODE D1NL20	
D628	8-719-059-23	DIODE P6KE200AG23	
D629	8-719-979-64	DIODE UF4005PKG23	
D631	8-719-110-31	DIODE RD12ES-B2	
D632	8-719-510-64	DIODE S2LA20F	
D633	8-719-109-89	DIODE RD5.6ESB2	
		< FUSE >	
F601	⚠ 1-576-232-21	FUSE (H.B.C.) 5AMP 250V	
		< FERRITE BEAD >	
FB001	1-412-911-11	FERRITE 0UH	
FB002	1-412-911-11	FERRITE 0UH	
FB601	1-412-911-11	FERRITE 0UH	
FB602	1-412-911-11	FERRITE 0UH	
FB605	1-410-397-21	FERRITE 1.1UH	
FB608	1-412-911-11	FERRITE 0UH	
FB609	1-410-396-41	FERRITE 0.45UH	
FB610	1-410-397-21	FERRITE 1.1UH	
FB611	1-410-397-21	FERRITE 1.1UH	
FB612	1-535-303-00	LEAD, JUMPER (5.0MM)	
		< IC >	
IC001	8-759-542-68	IC SAA5497PS/M1A/076	(KV-25R2A/25R2D)
	8-759-542-66	IC SAA5497PS/M1A/074	(KV-25R2E/25R2K)
	8-759-542-56	IC SAA5497PS/M1A/075	(KV-25R2R)
IC002	8-742-014-11	HYB IC SBX1981-51	
IC003	8-759-468-56	IC MN1381-T(TA)	
IC004	8-759-432-33	IC ST24W08FM6TR	
IC005	8-759-516-41	IC CD4052BCM	
IC101	8-759-466-49	IC TDA9817/V1	
IC201	8-759-442-74	IC TDA7495	
IC301	8-752-082-35	IC CXA2060AS	
IC501	8-759-192-71	IC STV9379	
IC531	8-759-450-95	IC LM393N	
IC603	8-749-920-61	IC SE135N	
IC604	8-759-524-82	IC TYA7805CTV	
IC605	8-759-267-25	IC LM2940T-9.0	
IC606	8-749-013-75	IC STR-F6654	
IC608	8-759-524-82	IC TYA7805CTV	
IC609	8-759-468-89	IC TOP209P	
		< PHOTO COUPLER >	
PH601	⚠ 8-749-010-64	PHOTO COUPLER PC123FY2	
		< JACK SOCKET >	
J201	1-764-606-11	JACK	
J401	1-770-130-11	CONNECTOR (SQUARE TYPE) 21P	
J402	1-784-967-11	JACK BLOCK, PIN 3P	
		< COIL >	
L001	1-408-603-31	INDUCTOR 10UH	
L102	1-408-600-31	INDUCTOR 5.6UH	
L103	1-403-686-11	COIL	
L104	1-535-303-00	LEAD, JUMPER (5.0MM)	
L106	1-408-611-31	INDUCTOR 47UH	
L201	1-408-591-11	INDUCTOR 1UH	
L202	1-408-591-11	INDUCTOR 1UH	
L203	1-406-979-11	INDUCTOR 0UH	
L204	1-408-603-31	INDUCTOR 10UH	
L205	1-408-603-31	INDUCTOR 10UH	
L301	1-216-295-00	SHORT 0	
L302	1-408-611-31	INDUCTOR 47UH	
L303	1-408-609-41	INDUCTOR 33UH	
L401	1-408-611-31	INDUCTOR 47UH	
L403	1-535-303-00	LEAD, JUMPER (5.0MM)	
L404	1-535-303-00	LEAD, JUMPER (5.0MM)	
L405	1-216-295-00	SHORT 0	

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REF. NO.	PART.NO	DESCRIPTION	REMARK
L406	1-216-295-00	SHORT 0	
L501	1-408-611-31	INDUCTOR 47UH	
L502	1-412-529-11	INDUCTOR 22UH	
L503	1-412-521-31	INDUCTOR 4.7UH	
L532	1-412-553-11	INDUCTOR 3.3MMH	
L533	1-406-989-21	INDUCTOR 0UH	
L535	1-459-111-00	INDUCTOR 0UH	
L537	1-409-756-11	COIL, HORIZONTAL LINEARITY	
L540	1-535-303-00	LEAD, JUMPER (5.0MM)	
L571	1-412-533-21	INDUCTOR 47UH	
L602	1-408-611-31	INDUCTOR 47UH	
		< TRANSISTOR >	
Q004	8-729-216-22	TRANSISTOR 2SA1162-G	
Q005	1-801-806-11	TRANSISTOR DTC144EKA	
Q006	1-801-806-11	TRANSISTOR DTC144EKA	
Q007	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q008	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q009	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q010	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q011	1-801-806-11	TRANSISTOR DTC144EKA	
Q012	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q014	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q101	8-729-216-22	TRANSISTOR 2SA1162-G	
Q202	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q401	8-729-216-22	TRANSISTOR 2SA1162-G	
Q408	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q501	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q532	8-729-038-83	TRANSISTOR 2SK2251-01-F19	
Q533	8-729-040-62	TRANSISTOR 2SD2539(LBSONY)	
Q535	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q571	8-729-105-08	TRANSISTOR 2SA1330-06	
Q574	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q575	1-801-806-11	TRANSISTOR DTC144EKA	
Q576	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q601	8-729-216-22	TRANSISTOR 2SA1162-G	
		< RESISTOR >	
JR012	1-216-295-00	SHORT 0	
JR023	1-216-296-00	SHORT 0	
JR031	1-216-295-00	SHORT 0	
JR403	1-216-073-00	RES,CHIP 10K 5% 1/10W	
JR412	1-216-077-00	RES,CHIP 15K 5% 1/10W	
JR610	1-216-296-00	SHORT 0	
JW220	8-719-109-89	DIODE RD5.6ESB2	
R001	1-216-025-00	RES,CHIP 100 5% 1/10W	
R002	1-216-025-00	RES,CHIP 100 5% 1/10W	
R003	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R004	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R005	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R007	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R008	1-216-025-00	RES,CHIP 100 5% 1/10W	
R009	1-216-025-00	RES,CHIP 100 5% 1/10W	
R010	1-216-025-00	RES,CHIP 100 5% 1/10W	
R011	1-216-025-00	RES,CHIP 100 5% 1/10W	
R012	1-247-807-31	CARBON 100 5% 1/4W	
R013	1-216-214-00	RES,CHIP 4.7K 5% 1/8W	
R014	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R015	1-216-049-00	RES,CHIP 1K 5% 1/10W	
R017	1-249-429-11	CARBON 10K 5% 1/4W	
R019	1-216-053-00	RES,CHIP 1.5K 5% 1/10W	
R023	1-216-295-00	SHORT 0	
R029	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R032	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R034	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R035	1-216-049-00	RES,CHIP 1K 5% 1/10W	
R036	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R038	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R039	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R046	1-216-085-00	RES,CHIP 33K 5% 1/10W	
R047	1-216-067-00	RES,CHIP 5.6K 5% 1/10W	
R048	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R049	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R050	1-216-041-00	RES,CHIP 470 5% 1/10W	
R051	1-216-049-00	RES,CHIP 1K 5% 1/10W	
R053	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R054	1-216-041-00	RES,CHIP 470 5% 1/10W	
R055	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R056	1-216-105-00	RES,CHIP 220K 5% 1/10W	
R057	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R058	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R059	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R060	1-216-174-00	RES,CHIP 100 5% 1/8W	
R061	1-216-174-00	RES,CHIP 100 5% 1/8W	
R062	1-216-033-00	RES,CHIP 220 5% 1/10W	
R065	1-216-025-00	RES,CHIP 100 5% 1/10W	
R066	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R067	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R068	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R069	1-216-049-00	RES,CHIP 1K 5% 1/10W	
R070	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R071	1-216-214-00	RES,CHIP 4.7K 5% 1/8W	
R072	1-216-097-00	RES,CHIP 100K 5% 1/10W	

REF. NO.	PART.NO	DESCRIPTION			REMARK
R073	1-216-097-00	RES,CHIP	100K	5%	1/10W
R075	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R077	1-216-083-00	RES,CHIP	27K	5%	1/10W
R082	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R083	1-216-031-00	RES,CHIP	180	5%	1/10W
R084	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R085	1-216-031-00	RES,CHIP	180	5%	1/10W
R086	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R087	1-216-180-00	RES,CHIP	180	5%	1/8W
R088	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R093	1-216-230-00	RES,CHIP	22K	5%	1/8W
R094	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R095	1-216-025-00	RES,CHIP	100	5%	1/10W
R096	1-247-807-31	CARBON	100	5%	1/4W
R097	1-247-807-31	CARBON	100	5%	1/4W
R098	1-247-807-31	CARBON	100	5%	1/4W
R101	1-216-049-00	RES,CHIP	1K	5%	1/10W
R106	1-215-900-11	METAL OXIDE	22K	5%	2W F
R116	1-249-437-11	CARBON	47K	5%	1/4W (KV-25R2E/25R2K)
R120	1-216-037-00	RES,CHIP	330	5%	1/10W
R121	1-216-025-00	RES,CHIP	100	5%	1/10W
R122	1-216-025-00	RES,CHIP	100	5%	1/10W
R133	1-216-295-00	SHORT	0		
R142	1-216-295-00	SHORT	0		
R143	1-216-025-00	RES,CHIP	100	5%	1/10W
R144	1-216-079-00	RES,CHIP	18K	5%	1/10W
R145	1-216-212-00	RES,CHIP	3.9K	5%	1/8W
R151	1-216-049-00	RES,CHIP	1K	5%	1/10W
R154	1-216-238-91	RES,CHIP	47K	5%	1/8W
R155	1-216-089-00	RES,CHIP	47K	5%	1/10W
R201	1-260-091-11	CARBON	220	5%	1/2W
R204	1-247-863-91	CARBON	22K	5%	1/4W
R205	1-260-091-11	CARBON	220	5%	1/2W
R206	1-216-085-00	RES,CHIP	33K	5%	1/10W
R209	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R211	1-215-873-00	METAL OXIDE	4.7K	5%	1W F
R213	1-216-093-00	RES,CHIP	68K	5%	1/10W
R301	1-216-025-00	RES,CHIP	100	5%	1/10W
R302	1-216-081-00	RES,CHIP	22K	5%	1/10W
R303	1-216-073-00	RES,CHIP	10K	5%	1/10W
R304	1-216-073-00	RES,CHIP	10K	5%	1/10W
R305	1-412-002-31	INDUCTOR CHIP	4.7UH		
R306	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R309	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R310	1-216-022-00	RES,CHIP	75	5%	1/10W
R313	1-216-025-00	RES,CHIP	100	5%	1/10W
R314	1-216-025-00	RES,CHIP	100	5%	1/10W
R315	1-216-075-00	RES,CHIP	12K	5%	1/10W
R316	1-216-025-00	RES,CHIP	100	5%	1/10W
R317	1-216-049-00	RES,CHIP	1K	5%	1/10W
R318	1-216-025-00	RES,CHIP	100	5%	1/10W
R319	1-216-025-00	RES,CHIP	100	5%	1/10W
R320	1-216-025-00	RES,CHIP	100	5%	1/10W
R321	1-216-025-00	RES,CHIP	100	5%	1/10W
R323	1-216-025-00	RES,CHIP	100	5%	1/10W
R324	1-412-002-31	INDUCTOR CHIP	4.7UH		
R325	1-412-002-31	INDUCTOR CHIP	4.7UH		
R326	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R331	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R332	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R333	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R334	1-216-025-00	RES,CHIP	100	5%	1/10W
R335	1-216-025-00	RES,CHIP	100	5%	1/10W
R338	1-216-049-00	RES,CHIP	1K	5%	1/10W
R401	1-216-113-00	RES,CHIP	470K	5%	1/10W
R402	1-216-077-00	RES,CHIP	15K	5%	1/10W
R403	1-216-041-00	RES,CHIP	470	5%	1/10W
R404	1-216-113-00	RES,CHIP	470K	5%	1/10W
R405	1-216-295-00	SHORT	0		
R406	1-216-113-00	RES,CHIP	470K	5%	1/10W
R408	1-216-022-00	RES,CHIP	75	5%	1/10W
R409	1-216-025-00	RES,CHIP	100	5%	1/10W
R410	1-216-025-00	RES,CHIP	100	5%	1/10W
R411	1-216-022-00	RES,CHIP	75	5%	1/10W
R412	1-216-025-00	RES,CHIP	100	5%	1/10W
R413	1-216-295-00	SHORT	0		
R414	1-216-022-00	RES,CHIP	75	5%	1/10W
R415	1-216-022-00	RES,CHIP	75	5%	1/10W
R417	1-247-804-11	CARBON	75	5%	1/4W
R418	1-249-413-11	CARBON	470	5%	1/4W
R419	1-216-022-00	RES,CHIP	75	5%	1/10W
R420	1-216-041-00	RES,CHIP	470	5%	1/10W
R421	1-216-113-00	RES,CHIP	470K	5%	1/10W
R422	1-216-295-00	SHORT	0		
R425	1-216-077-00	RES,CHIP	15K	5%	1/10W
R426	1-216-073-00	RES,CHIP	10K	5%	1/10W
R445	1-216-171-00	RES,CHIP	75	5%	1/8W
R446	1-216-113-00	RES,CHIP	470K	5%	1/10W
R447	1-216-077-00	RES,CHIP	15K	5%	1/10W
R448	1-216-113-00	RES,CHIP	470K	5%	1/10W
R449	1-216-077-00	RES,CHIP	15K	5%	1/10W
R450	1-216-041-00	RES,CHIP	470	5%	1/10W
R454	1-216-041-00	RES,CHIP	470	5%	1/10W

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

A

REF. NO.		PART.NO	DESCRIPTION			REMARK
R457		1-216-025-00	RES,CHIP	100	5%	1/10W
R459		1-247-807-31	CARBON	100	5%	1/4W
R501		1-216-081-00	RES,CHIP	22K	5%	1/10W
R502		1-216-097-00	RES,CHIP	100K	5%	1/10W
R503		1-215-888-00	METAL OXIDE	220	5%	2W F
R504		1-249-385-11	CARBON	2.2	5%	1/4W F
R505		1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R506		1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R507		1-216-349-00	METAL OXIDE	1	5%	1W F
R508		1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R509		1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R510		1-216-081-00	RES,CHIP	22K	5%	1/10W
R511		1-215-869-11	METAL OXIDE	1K	5%	1W F
R512		1-249-382-11	CARBON	1.2	5%	1/4W F
R513		1-216-097-00	RES,CHIP	100K	5%	1/10W
R514		1-249-377-11	CARBON	0.47	5%	1/4W F
R515		1-249-377-11	CARBON	0.47	5%	1/4W F
R516		1-249-493-11	CARBON	56K	5%	1/2W
R517		1-249-436-11	CARBON	39K	5%	1/4W
R518		1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R520		1-215-884-11	METAL OXIDE	47	5%	2W F
R521		1-216-117-00	RES,CHIP	680K	5%	1/10W
R522		1-216-097-00	RES,CHIP	100K	5%	1/10W
R523		1-208-845-11	RES,CHIP	1M	5%	1/10W
R524		1-216-083-00	RES,CHIP	27K	5%	1/10W
R525		1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R526		1-216-089-00	RES,CHIP	47K	5%	1/10W
R527		1-216-077-00	RES,CHIP	15K	5%	1/10W
R528		1-216-246-00	RES,CHIP	100K	5%	1/8W
R529		1-216-073-00	RES,CHIP	10K	5%	1/10W
R530		1-216-085-00	RES,CHIP	33K	5%	1/10W
R531		1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R532		1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R533		1-216-073-00	RES,CHIP	10K	5%	1/10W
R534		1-216-113-00	RES,CHIP	470K	5%	1/10W
R535		1-216-109-00	RES,CHIP	330K	5%	1/10W
R539		1-216-049-00	RES,CHIP	1K	5%	1/10W
R540		1-215-861-00	METAL OXIDE	47	5%	1W F
R541		1-216-095-00	RES,CHIP	82K	5%	1/10W
R542		1-216-089-00	RES,CHIP	47K	5%	1/10W
R543		1-216-089-00	RES,CHIP	47K	5%	1/10W
R546		1-249-401-11	CARBON	47	5%	1/4W F
R547		1-535-143-71	LEAD, JUMPER (7.5MM)			
R548		1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R549		1-216-341-11	METAL OXIDE	0.22	5%	1W F
R551		1-215-873-00	METAL OXIDE	4.7K	5%	1W F
R552		1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R553		1-249-381-11	CARBON	1	5%	1/4W F
R571		1-249-417-11	CARBON	1K	5%	1/4W F
R572		1-216-369-00	METAL OXIDE	1	5%	2W F
R573		1-216-101-00	RES,CHIP	150K	5%	1/10W
R574		1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R575		1-216-097-00	RES,CHIP	100K	5%	1/10W
R576		1-249-399-11	CARBON	33	5%	1/4W
R581		1-216-089-00	RES,CHIP	47K	5%	1/10W
R582		1-216-089-00	RES,CHIP	47K	5%	1/10W
R583		1-216-081-00	RES,CHIP	22K	5%	1/10W
R588		1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R589		1-216-097-00	RES,CHIP	100K	5%	1/10W
R590		1-216-081-00	RES,CHIP	22K	5%	1/10W
R591		1-215-892-11	METAL OXIDE	1K	5%	2W F
R593		1-249-439-11	CARBON	68K	5%	1/4W
R594		1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R595		1-249-377-11	CARBON	0.47	5%	1/4W F
R602		1-202-961-11	CEMENTED	1.8	5%	10W
R603		1-202-933-61	FUSIBLE	0.1	10%	1/2W F
R607	⚠	1-202-961-11	CEMENTED	1.8	5%	10W
R608		1-215-927-00	METAL OXIDE	47K	5%	3W F
R611		1-249-415-11	CARBON	680	5%	1/4W
R613	⚠	1-240-030-91	METAL	4.7M	5%	1/2W
R614	⚠	1-240-030-91	METAL	4.7M	5%	1/2W
R615		1-249-422-11	CARBON	2.7K	5%	1/4W
R616		1-216-393-00	METAL OXIDE	2.2	5%	3W F
R617		1-249-405-11	CARBON	100	5%	1/4W F
R619		1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R622		1-249-401-11	CARBON	47	5%	1/4W
R627		1-249-385-11	CARBON	2.2	5%	1/4W F
R628		1-247-791-91	CARBON	22	5%	1/4W
R652		1-216-393-00	METAL OXIDE	2.2	5%	3W F
R653		1-216-393-00	METAL OXIDE	2.2	5%	3W F
R658		1-215-929-11	METAL OXIDE	100K	5%	3W F
R659		1-216-383-11	METAL OXIDE	0.33	5%	3W F
R660		1-216-384-11	METAL OXIDE	0.39	5%	3W F
R661		1-247-843-11	CARBON	3.3K	5%	1/4W
R662		1-215-929-11	METAL OXIDE	100K	5%	3W F
R664		1-249-417-11	CARBON	1K	5%	1/4W
R665		1-215-877-11	METAL OXIDE	22K	5%	1W F
R667		1-215-927-00	METAL OXIDE	47K	5%	3W F
			< RELAY >			
RY601	⚠	1-755-245-11	RELAY, AC POWER			

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

A **C**

REF. NO.		PART.NO	DESCRIPTION			REMARK
			< SWITCH >			
S001		1-571-532-21	SWITCH, TACTIL			
S002		1-571-532-21	SWITCH, TACTIL			
S003		1-571-532-21	SWITCH, TACTIL			
S004		1-571-532-21	SWITCH, TACTIL			
S005		1-571-532-21	SWITCH, TACTIL			
S006		1-571-532-21	SWITCH, TACTIL			
S601	⚠	1-571-433-21	SWITCH, PUSH (AC POWER)			
SW532		1-572-707-11	SWITCH, LEVER			
			< TRANSFORMER >			
T511	⚠	1-453-264-11	TRANSFORMER ASSY, FLYBACK (NX-1680/U2B4)			
T531		1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE			
T532		1-431-228-11	TRANSFORMER, POWER MODULATION			
T601	⚠	1-427-962-11	TRANSFORMER, LINE FILTER			
T602		1-431-732-11	TRANSFORMER, CONVERTER (SRT)			
T603	⚠	1-431-777-11	TRANSFORMER, CONVERTER			
			< THERMISTOR >			
THP601	⚠	1-810-961-11	THERMISTOR, POSITIVE			
			< TUNER >			
TU101		8-598-432-00	TUNER (FSS BTP-AC411)			
			< CRYSTAL >			
X001		1-578-774-11	VIBRATOR, CRYSTAL			
X302		1-567-505-11	OSCILLATOR, CRYSTAL			
X303		1-567-504-11	OSCILLATOR, CRYSTAL			
**********						
		*A-1638-117-A	C BOARD, COMPLETE			
			**********			
			< CAPACITOR >			
C701		1-102-114-00	CERAMIC	470PF	10%	50V
C702		1-102-116-00	CERAMIC	680PF	10%	50V
C703		1-102-117-00	CERAMIC	820PF	10%	50V
C708		1-162-114-00	CERAMIC	0.0047MF		2KV
C710		1-107-652-11	ELECT	10MF	20%	250V
C711		1-102-114-00	CERAMIC	470PF	10%	50V
C712		1-102-117-00	CERAMIC	820PF	10%	50V
C714		1-126-967-11	ELECT	47MF	20%	16V
C717		1-102-114-00	CERAMIC	470PF	10%	50V
C718		1-102-114-00	CERAMIC	470PF	10%	50V
C719		1-102-114-00	CERAMIC	470PF	10%	50V
C722		1-101-880-00	CERAMIC	47PF	5%	50V
C723		1-101-880-00	CERAMIC	47PF	5%	50V
C724		1-101-880-00	CERAMIC	47PF	5%	50V
			< CONNECTOR >			
CN701		1-784-633-11	PIN, CONNECTOR 4P			
CN702		1-695-915-11	TAB (CONTACT)			
CN703		*1-564-509-11	PLUG, CONNECTOR 6P			
			< DIODE >			
D701		8-719-929-15	DIODE HZS9.1NB2			
D702		8-719-991-33	DIODE 1SS133T-77			
D703		1-535-465-11	LEAD, JUMPER (5.0MM)			
D704		1-535-465-11	LEAD, JUMPER (5.0MM)			
D705		1-535-465-11	LEAD, JUMPER (5.0MM)			
D706		8-719-991-33	DIODE 1SS133T-77			
D707		8-719-991-33	DIODE 1SS133T-77			
D708		8-719-991-33	DIODE 1SS133T-77			
D709		8-719-991-33	DIODE 1SS133T-77			
D710		8-719-991-33	DIODE 1SS133T-77			
D711		1-535-143-31	LEAD, JUMPER (15.0MM)			
D713		1-535-465-11	LEAD, JUMPER (5.0MM)			
D714		8-719-991-33	DIODE 1SS133T-77			
D715		8-719-991-33	DIODE 1SS133T-77			
D716		8-719-991-33	DIODE 1SS133T-77			
D717		8-719-991-33	DIODE 1SS133T-77			
D718		8-719-991-33	DIODE 1SS133T-77			
D719		8-719-991-33	DIODE 1SS133T-77			
D720		8-719-991-33	DIODE 1SS133T-77			
			< CRT SOCKET >			
J701	⚠	1-526-990-21	SOCKET, CRT			
			< COIL >			
L704		1-408-609-41	INDUCTOR	33UH		
			< TRANSISTOR >			
Q702		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q703		8-729-906-70	TRANSISTOR BF871-127			
Q704		8-729-200-17	TRANSISTOR BF421L-AMMO			
Q705		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q706		8-729-906-70	TRANSISTOR BF871-127			
Q707		8-729-200-17	TRANSISTOR BF421L-AMMO			
Q708		8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q709		8-729-906-70	TRANSISTOR BF871-127			
Q710		8-729-200-17	TRANSISTOR BF421L-AMMO			

C S1

REF. NO.	PART.NO	DESCRIPTION				REMARK
		< RESISTOR >				
R701	1-247-895-91	CARBON	470K	5%	1/4W	
R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R705	1-260-103-11	CARBON	2.2K	5%	1/2W	
R706	1-247-815-91	CARBON	220	5%	1/4W	
R707	1-247-815-91	CARBON	220	5%	1/4W	
R708	1-247-791-91	CARBON	22	5%	1/4W	
R709	1-202-844-00	SOLID	330K	10%	1/2W	
R711	1-247-843-11	CARBON	3.3K	5%	1/4W	
R712	1-260-103-11	CARBON	2.2K	5%	1/2W	
R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R715	1-249-417-11	CARBON	1K	5%	1/4W	
R716	1-247-815-91	CARBON	220	5%	1/4W	
R717	1-247-815-91	CARBON	220	5%	1/4W	
R718	1-202-814-11	SOLID	33K	10%	1/2W	
R719	1-247-791-91	CARBON	22	5%	1/4W	
R720	1-247-843-11	CARBON	3.3K	5%	1/4W	
R722	1-202-848-00	SOLID	680K	10%	1/2W	
R723	1-249-417-11	CARBON	1K	5%	1/4W	
R724	1-260-131-11	CARBON	470K	5%	1/2W	
R726	1-260-103-11	CARBON	2.2K	5%	1/2W	
R727	1-247-815-91	CARBON	220	5%	1/4W	
R728	1-216-351-00	METAL OXIDE	1.5	5%	1W	F
R729	1-247-815-91	CARBON	220	5%	1/4W	
R730	1-247-791-91	CARBON	22	5%	1/4W	
R731	1-247-843-11	CARBON	3.3K	5%	1/4W	
R733	1-249-417-11	CARBON	1K	5%	1/4W	
R734	1-247-807-31	CARBON	100	5%	1/4W	
R735	1-249-417-11	CARBON	1K	5%	1/4W	
R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R739	1-249-417-11	CARBON	1K	5%	1/4W	
R740	1-249-417-11	CARBON	1K	5%	1/4W	
R741	1-202-549-00	SOLID	100	20%	1/2W	
R744	1-249-421-11	CARBON	2.2K	5%	1/4W	
R745	1-249-421-11	CARBON	2.2K	5%	1/4W	
R746	1-249-421-11	CARBON	2.2K	5%	1/4W	
		< VARIABLE RESISTOR >				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702	1-241-656-21	RES, ADJ, METAL FILM 110M				

REF. NO.	PART.NO	DESCRIPTION				REMARK
*A-1652-053-A		S1 BOARD, COMPLETE				(KV-25R2A/25R2D/25R2R)
		******************				
*A-1652-052-A		S1 BOARD, COMPLETE				(KV-25R2E/25R2K)
		******************				
		< CAPACITOR >				
C1103	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1106	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1107	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1108	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1109	1-104-664-11	ELECT	47MF	20%	25V	
C1112	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C1113	1-104-664-11	ELECT	47MF	20%	25V	
C1114	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C1115	1-104-664-11	ELECT	47MF	20%	25V	
C1118	1-162-637-11	CERAMIC CHIP	0.47MF		16V	
C1120	1-164-005-11	CERAMIC CHIP	0.47MF		25V	
C1122	1-104-664-11	ELECT	47MF	20%	25V	
C1123	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1124	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C1127	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
						(KV-25R2A/25R2D/25R2R)
	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
						(KV-25R2E/25R2K)
C1128	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C1129	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V	
						(KV-25R2E/25R2K)
C1130	1-110-501-11	CERAMIC CHIP	0.033MF	10%	16V	
						(KV-25R2E/25R2K)
C1131	1-164-005-11	CERAMIC CHIP	0.47MF		25V	
						(KV-25R2A/25R2D/25R2R)
C1132	1-104-664-11	ELECT	47MF	20%	25V	
C1133	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1143	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C1144	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C1145	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V	
C1146	1-164-005-11	CERAMIC CHIP	0.47MF		25V	
C1147	1-164-005-11	CERAMIC CHIP	0.47MF		25V	
C1148	1-164-005-11	CERAMIC CHIP	0.47MF		25V	
C1149	1-126-960-11	ELECT	1MF	20%	50V	
C1150	1-126-960-11	ELECT	1MF	20%	50V	
C1151	1-104-664-11	ELECT	47MF	20%	25V	
C1152	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
		< CONNECTOR >				
CN1101	1-766-925-11	CONNECTOR, BOARD TO BOARD 18P				

REF. NO.	PART.NO	DESCRIPTION			REMARK
		< DIODE >			
D1101	1-216-295-00	SHORT	0		(KV-25R2A/25R2D/25R2R)
	8-719-066-72	DIODE BB135			(KV-25R2E/25R2K)
		< FERRITE BEAD >			
FB1101	1-410-396-41	FERRITE	0.45UH		
FB1102	1-410-396-41	FERRITE	0.45UH		
FB1103	1-410-396-41	FERRITE	0.45UH		
FB1104	1-410-396-41	FERRITE	0.45UH		
FB1105	1-410-396-41	FERRITE	0.45UH		
FB1110	1-412-002-31	INDUCTOR CHIP	4.7UH		
FB1111	1-412-002-31	INDUCTOR CHIP	4.7UH		
FB1112	1-412-002-31	INDUCTOR CHIP	4.7UH		
		< IC >			
IC1101	8-759-522-62	IC TDA9870			(KV-25R2A/25R2D/25R2R)
	8-759-466-48	IC TDA9875P			(KV-25R2E/25R2K)
IC1102	8-759-100-96	IC UPC4558G2			
IC1103	8-759-394-57	IC PST593C-MMP-4P			
		< COIL >			
L1101	1-408-596-31	INDUCTOR	27UH		(KV-25R2E/25R2K)
L1114	1-410-671-31	INDUCTOR	47UH		
L1115	1-408-599-31	INDUCTOR	4.7UH		
L1116	1-408-599-31	INDUCTOR	4.7UH		
		< RESISTOR >			
JR1105	1-216-295-00	SHORT	0		
JR1112	1-216-295-00	SHORT	0		
JR1113	1-216-295-00	SHORT	0		
R1101	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R1102	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R1103	1-216-035-00	RES,CHIP	270	5% 1/10W	
R1105	1-216-035-00	RES,CHIP	270	5% 1/10W	
R1110	1-216-025-00	RES,CHIP	100	5% 1/10W	
R1111	1-216-025-00	RES,CHIP	100	5% 1/10W	
R1113	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R1116	1-216-295-00	SHORT	0		(KV-25R2A/25R2D/25R2R)
	1-216-689-11	METAL, CHIP	39K	0.50% 1/10W	(KV-25R2E/25R2K)
R1117	1-216-073-00	RES, CHIP	10K	5% 1/10W	(KV-25R2E/25R2K)
R1118	1-216-682-00	METAL, CHIP	20K	0.50% 1/10W	(KV-25R2E/25R2K)
R1121	1-216-065-00	RES,CHIP	4.7K	5% 1/10W	
R1122	1-216-065-00	RES,CHIP	4.7K	5% 1/10W	
R1123	1-216-065-00	RES,CHIP	4.7K	5% 1/10W	
R1124	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R1125	1-216-065-00	RES,CHIP	4.7K	5% 1/10W	
R1126	1-216-073-00	RES,CHIP	10K	5% 1/10W	
R1164	1-216-073-00	RES,CHIP	10K	5% 1/10W	(KV-25R2E/25R2K)
R1165	1-216-295-00	SHORT	0		(KV-25R2A/25R2D/25R2R)
R1174	1-216-085-00	RES,CHIP	33K	5% 1/10W	
R1175	1-216-085-00	RES,CHIP	33K	5% 1/10W	
R1176	1-216-085-00	RES,CHIP	33K	5% 1/10W	
R1177	1-216-085-00	RES,CHIP	33K	5% 1/10W	
R1178	1-216-073-00	RES,CHIP	10K	5% 1/10W	
		< CRYSTAL >			
X1101	1-767-813-21	VIBRATOR, CRYSTAL			

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The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

REF. NO.	PART.NO	DESCRIPTION	REMARK
		MISCELLANEOUS	
		**********	
⚠	1-416-042-11	COIL, DEGAUSS	
	1-452-032-00	MAGNET, DISC; 10MM Ø	
	1-452-094-00	MAGNET, ROTATABLE DISC; 15MM Ø	
⚠	1-435-264-11	TRANSFORMER ASSY, FLYBACK (NX-1680/U2B4)	
	1-529-140-11	SPEAKER (5.7X12.6CM)	
⚠	1-251-317-31	CAP ASSY, HIGH VOLTAGE	
⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
⚠	1-765-286-11	CORD POWER	
	8-598-432-00	TUNER (FSS BTP-AC411)	
⚠	8-451-404-23	DEFLECTION YOKE (Y25GXABA)	
⚠	8-733-254-05	PICTURE TUBE (SD-257) (M60LCS60X)	

REF. NO.	PART.NO	DESCRIPTION	REMARK
		ACCESSORIES AND PACKAGING MATERIAL	
		**********	
	4-204-337-41	MANUAL, INSTRUCTION (KV-25R2A) (ITALIAN)	
	4-204-337-11	MANUAL, INSTRUCTION (KV-25R2D) (ENGLISH/GERMAN/GREEK/DUTCH/TURKISH/ITALIAN/FRENCH)	
	4-204-337-71	MANUAL, INSTRUCTION (KV-25R2E) (SPANISH)	
	4-204-337-81	MANUAL, INSTRUCTION (KV-25R2E) (PORTUGUESE/FINNISH/DANISH/NORWEGIAN/SWEDISH)	
	4-204-337-91	MANUAL, INSTRUCTION (KV-25R2K) (CZECH/POLISH/ENGLISH/HUNGARIAN)	
	4-204-339-91	MANUAL, INSTRUCTION (KV-25R2R) (ENGLISH/RUSSIAN/BULGARIAN)	
	*4-042-476-01	BAG, PROTECTION	
	*4-204-218-01	INDIVIDUAL CARTON	
	*4-203-271-21	CUSHION (LOWER) (ASSY)	
	*4-203-268-01	CUSHION (UPPER) (ASSY)	
		REMOTE COMMANDER	
		**********	
	1-475-765-11	COMMANDER, STANDARD TYPE (RM-883)	

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9-974-971-01

Sony Corporation
Sony UK
Service Promotions Dept.

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